



## Full Length Research Article

### THE MARICHJHANPI MASSACRE: DICHOTOMIES OF MAN – ENVIRONMENT CONFLICT

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#### ABSTRACT

The Indian Sundarban forms a part of the single largest halophytic ecosystem of the world. The Indian Sundarban is 9630 km<sup>2</sup> in area. Among 102 islands, 54 are reclaimed. Physiographically, the Indian Sundarban forms a deltaic plain, criss- crossed by an intricate network of tidal channels which have now severed from their fresh water upland sources. The islands of the Sundarban located at the forest fringe are less sheltered from the ravages of nature. The economic status of about 4 million inhabitants of Sundarban is quite low. The livelihood of people revolves around extraction of resources from forests and creeks apart from agriculture. The question of prioritization plays a pivotal role in the smooth functioning of the society as a whole. Conservation of environment is of prime importance however it is often ironical that the question of environmental conservation has brought about displacement of poor and hapless people. Man environment conflict in the Indian Sundarban has been age old conflict. This paper deals with the dichotomies of development in sites like Marichjhanpi, Jambudwip and Jharkhali. Eviction of East Pakistani refugees from Marichjhanpi in lieu of environmental conservation was prevalent in the regime of the Left front government. The same regime led to forceful establishment of settlement at Jharkhali, the southernmost island of Basanti community development block. Fishermen were also evicted from Jambudwip in lieu of conservation of forests while the river Hukaharaniya was dammed to enhance fresh water agriculture. This paper deals with these incidents and the dichotomies of development on one hand and conservation on the other. Cartograms have been prepared to depict the massacre of Marichjhanpi while the inception of settlement at the cost of forests at Jharkhali has been traced with the help of SOI toposheets and LANDSAT imageries of various years. Normalised Differential Vegetation Indices indicating the deteriorating health of vegetation at Jharkhali have been used. At the same time, these tools have also been used to depict the scenario of Marichjhanpi.

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#### INTRODUCTION

The Indian Sundarban forms a part of the single largest halophytic ecosystem of the world. The Indian Sundarban is 9630 sq km in area. Among 102 islands, 54 are reclaimed. Physiographically, the Indian Sundarban forms a deltaic plain, criss crossed by an intricate network of tidal channels which have now been severed from their fresh water upland sources. The deltaic Sundarban forms the active part of Ganga delta (Bagchi, 1944). The islands of the Sundarban located at the forest fringe are less sheltered from the ravages of nature. The economic status of about 4 million inhabitants of

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Sundarban is quite low. The livelihood of people revolves around extraction of resources from forests and creeks apart from agriculture. Embankments, mostly earthen are the lifelines of the people of Sundarban. These have been erected to protect the people from the saline water of the tidal rivers and to hold back the high tides which occur twice daily. It is estimated by the forest officials of both countries that around 300 islanders in West Bengal and Bangladesh are killed each year by tigers and crocodiles alone (Jalais, 2007). Agriculture, mainly monocropping predominates here as the saline river water is not suitable for cultivation. The earthen embankments break frequently. Premature reclamation of the Indian Sundarban in the form of raised embankments has resulted in disequilibrium of fluvial dynamics causing shifts of thalweg line in some cases. Raising of embankments also leads to reduction of spill areas of the rivers. The sediments are thus

deposited on the riverbed itself and the floodplain remains devoid of sediments. Thus in Sundarban, the settlements are at a lower level than the rivers and are liable to flooding. There are no such industrial enterprises in the Sundarban. Even basic commodities like kerosene, cooking oil, bricks, cement, paddy, vegetables and fruit have to be brought by country boats. "Development programmes such as strengthening embankments and river bunds, road building or installing electricity have not been undertaken on the grounds that the peculiar geography of the area is not conducive to such projects" (Jalais, 2007). The question of prioritization plays a pivotal role in the smooth functioning of the society as a whole. Conservation of environment is of prime importance however it is often ironical that the question of environmental conservation has brought about displacement of poor and hapless people. Even it is ironical that the government which had voiced for the conservation of the environment and evicted common people from the site, the same government had spoke for the inception of developmental projects risking the environment. Be it refusal of forest rights at Nagerhole National Park in Karnataka or thermal power complex at Korba, of Chattisgarh state of India or construction of Narmada dam near the state of Gujarat of India the question of man environmental conflict has been at the forefront. Man environmental conflict in the Indian Sundarban has been age old conflict. This paper deals with the dichotomies of development in sites like Marichjhanpi, Jambudwip and Jharkhali

### Premature reclamation of Indian Sundarban and history of settlement

Excavations prove that settlement at some places of Indian Sundarban (Nalgara – Baishhata – Manirtat near Jaynagar of South 24 Parganas, West Bengal, India) dates back to the Pal dynasty of 10<sup>th</sup> – 11<sup>th</sup> century. Settlement at Mathurapur of South 24 Parganas falling under the Indian Sundarban dates back to the Pal dynasty as exemplified by the architecture of temples and the materials used in the construction of temples. Settlement of Khari, near Mathurapur dates back to Sen Dynasty. Raja Pratapaditya, one of the local chiefs (Bara Bhuniyas) ruled over this area and he may have built naval outposts, garden houses, forest check posts and isolated hamlets. Gastrell in 1864 and Oldham in 1893 opined that the evidence of existence of Sundari trees at a much lower level (3 – 5.4 m) than the present surface indicate that the degeneration of old settlements might have been due to subsidence of forested areas and consequent encroachment by sea. It can be inferred that "no extensive settlement into the limits of prematurely reclaimed Sundarban was in existence at any time in the past. In the inner fringe areas which were naturally reclaimed, there are ample evidences of settlements of about 300 years old" (Mukherjee, 2002). Reclamation of Sundarban can be classified into four phases. Reclamation was brought about for the collection of the revenue by British officers before Indian independence and to accommodate East Pakistani refugees and to ensure their solidarity after independence. The advancement of settlement in 1770 was started by Claude Russell, the collector general in Sundarban. Leases were granted as Patitabadi Taluks (tenures for waste land reclamation). Reclamation in this phase was carried out in Haroa now in North 24 Parganas of West Bengal, Bhangar and Kulpi, of South 24 Parganas of West Bengal and parts of Hasnabad, of North 24 Parganas Canning, Baruipur, Jaynagar and Patharpratima of South 24 Parganas. 1770 – 1873 saw the reclamation to be extended to parts of Hasnabad of North 24 Parganas, Haroa of North 24 Parganas, Bhangar, Kulpi of South 24 Parganas with substantial reclamation in Hingalganj of North 24 Parganas, Minakhan of North 24 Parganas, Canning, Jaynagar, Mathurapur and Sagar, presently in South 24 Parganas. Fresh reclamation covering whole of Sandeshkhali of North 24 Parganas and Kakdwip and residual portions of Canning and Sagar of South 24 Parganas occurred in 1873 – 1939. Greater parts of Namkhana, Patharpratima and Basanti presently in South 24 Parganas were reclaimed. Large areas of Mathurapur, Kultali of South 24 Parganas and Hingalganj of North 24 Parganas were reclaimed. Gosaba of South 24 Parganas was reclaimed by Sir Daniel Hamilton of Scotland. In between 1945 and 1951 some additional marginal settlements were brought up in Hingalganj, Gosaba, Basanti, Kultali, Mathurapur, Patharpratima and Namkhana. Rehabilitation of East Pakistan refugees in portions of Hingalganj, Gosaba, Satjelia, Kultali, Patharpratima, Namkhana, Sagar and Jharkhali area of Basanti.

### Study area

Jambudwip is an island located in the Bay of Bengal at a distance of 8 km to the south east of Sagar island and to the south west of Fraserganj of South 24 Parganas district of West Bengal. Jharkhali is the southernmost village panchayat of the community development block.

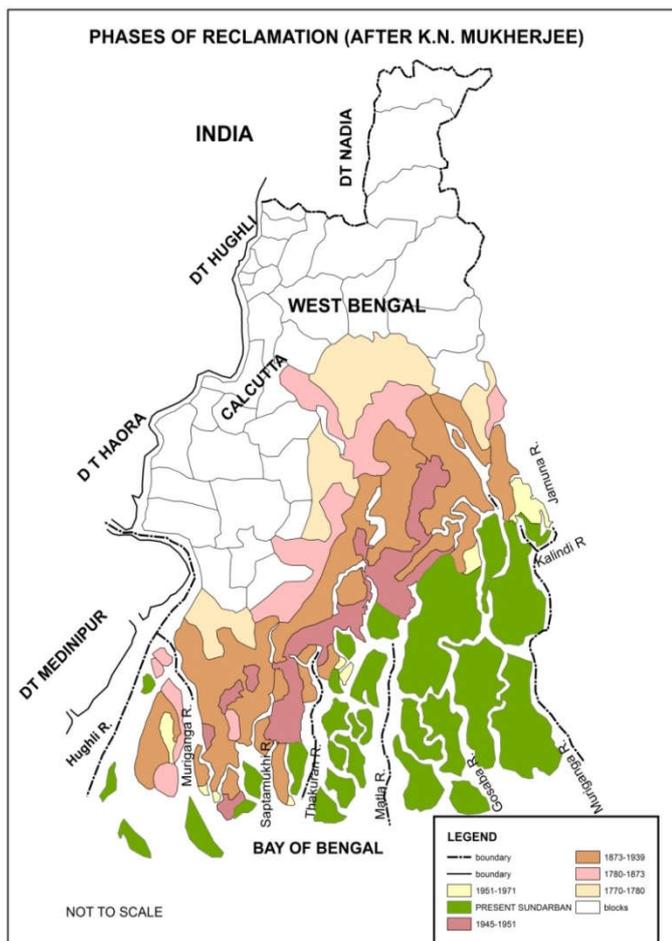


Fig. 1. Phases of reclamation (Source: Mukherjee, 2002)

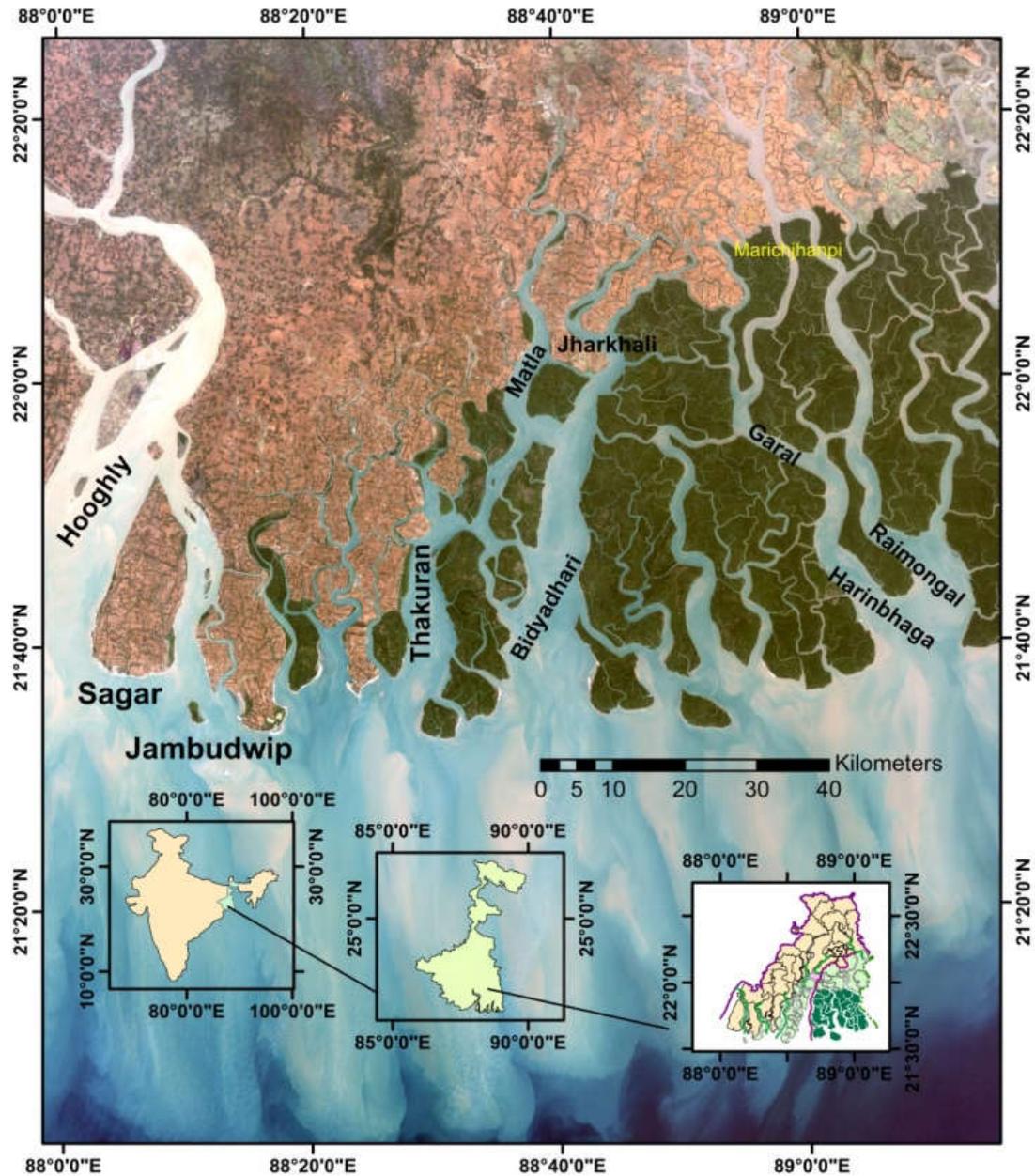


Fig. 2. Location map of the study area

It is surrounded by river Matla to the west and by river Bidya to the east. It is separated from Herobhanga Reserve forest by Herobhanga river. Marichjhanpi is on the other hand located opposite to Kumirmari, the last settlement of the community development block Gosaba.

### Reclamation a peril to mangroves

The reclamation of Sundarban for the generation of revenue has led to repeated recession of mangroves. According to Rennell's map of 1776, mangrove forests extended up to Kolkata at the end of 18<sup>th</sup> century. In 1873, the northern border of the mangrove forest shifted by about 20 km to the south east. Between 1873 and 1968 the mangrove covered area decreased by about half on account of transformation of agricultural lands to settlements.

The mangrove boundary shifted further to the south and the mangroves were cleared between the Hooghly and Matla river.

Table 1. Areal change of mangroves

Year of observation	Mangrove forest (km <sup>2</sup> )	Area change per decade (%)
1776	6588	-
1873	6068	-0.8
1968	2307	-6.5
1989	1983	-6.7
2001	1926	-2.4
2014	1852	-3.0

(Source: Ghosh, 2015)

### The massacre at Marichjhanpi

**Background:** India gained her independence on 15<sup>th</sup> August 1947 at the cost of a partition of Punjab on the west and Bengal on the east. The western part of Bengal, now known as

Bangladesh after its independence was then a part of Pakistan. Known as East Pakistan, the residents of this portion were mostly Bengali Hindus and they demanded a separate country of their own. At the outset of the 1971 *Muktijuddho* (Liberation War) of Bangladesh, the Bengali Hindus who bore a close resemblance to their brethren of West Bengal of India started pouring into India in large numbers. The refugees pouring into India were rehabilitated to camps at Dandakaranya, presently at Chattisgarh. The infertile and distant forests of Malkangiri of Orissa, Umarmot, Paralkot and Kondagaon were provided for rehabilitation of the refugees. The refugees were taken from Mana camp to Bailadila. They were employed as labourers for the establishment of airport. Unaccustomed to this profession the refugees refused to work there and demanded to return to West Bengal.

### *Life at Dandakaranya*

The infertile and distant forests of Malkangiri, Umarmot, Paralkot and Kondagaon were provided for rehabilitation of the refugees. The refugees from East Pakistan received only 90, 889 acres out of 25,000 sq miles.

**Table 2. Allotment of land at Dandakaranya**

Forest area cleared	Acres	Villages	Families
Malkangiri	74,623	215	17,332
Umarmot	40,079	64	7,665
Paralkot	50,399	133	11,248
Kondagaon	10,008	16	1027
		428	36,672

(Source: Ghosh Dastidar, 1979)

In addition to that, the refugees stationed at Mana camp were headed to Bailadila where they were instructed to break stones for the purpose of construction of new airport. 150 miles from Jagdalpur, the Bengali refugees were kept in unhealthy ambience. The refugees were assaulted on various concocted grounds by the local employees. The young girls were molested frequently, refugees were jailed and some were even fired at. 3 to 5 acres of lands were divided into 4/5 plots and were allotted to each migrant family at a distance of 4 – 5 km. The villages were barren, stony and infertile without proper water supply. The offices, ration centres, hospitals were separated from the refugee camps by 15/20 km. Doles (subsidies) from West Bengal were cancelled and left with no other option the refugees had to stay at Dandakaranya. Lack of space coupled with unhygienic ambience led to deaths of children and aged people.

### *A new beginning at Marichjhanpi*

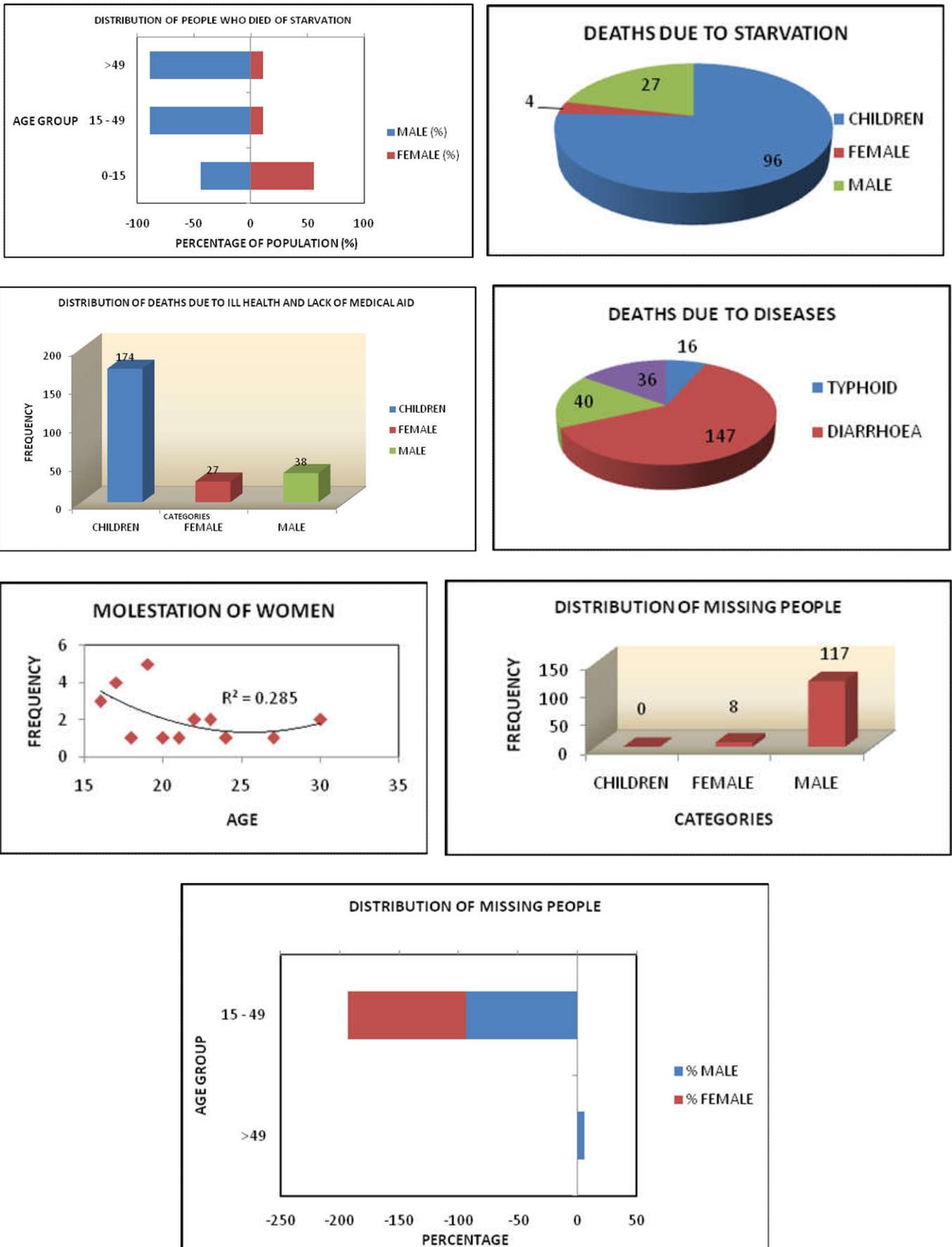
After the Liberation war in 1971 when East Pakistan was to be replaced by the desired independent country of Bangladesh, the Bengali residents of East Pakistan who bore a cultural and linguistic affinity to the Bengalis of India longed to stay at West Bengal. The then Left front government had promised to rehabilitate the refugees in West Bengal once they won. In 1977 Ram Chatterjee, leader of Marxist Forward Bloc announced a welcoming note which was not supported by his fellow workers. The refugees started pouring in West Bengal since 1978 and reached Hasnabad after escaping police vigil at

Habra, Barasat and Bali bridge of West Bengal. With the increasing number of refugees pouring in populous West Bengal the government tried to send them back to Dandakaranya. The refugees gathered and camped at Hasnabad for two months trying to find out proper means of livelihood. After staying for 15/20 days at Kumirmari without any obstruction, the refugees entered Bagna and Marichjhanpi. They cleared the wastelands, distributed the lands among the people at low costs and started cultivation. The refugee colonies were segregated into no. 1, no. 2, no.3 and no.4 sectors. They built schools, hospitals, roads, tube wells, bidi factories, bakeries, weaveries etc. They created 12 settlements and laid out drainage channels to prevent water logging. They had built smithies, a pottery, 7 fisheries, boat building yards with 170 boats and marketplaces with 300 stalls and a yield of about 20 crores of fishes. (Chatterjee, 1992, Mallick, 1999).

### *The massacre*

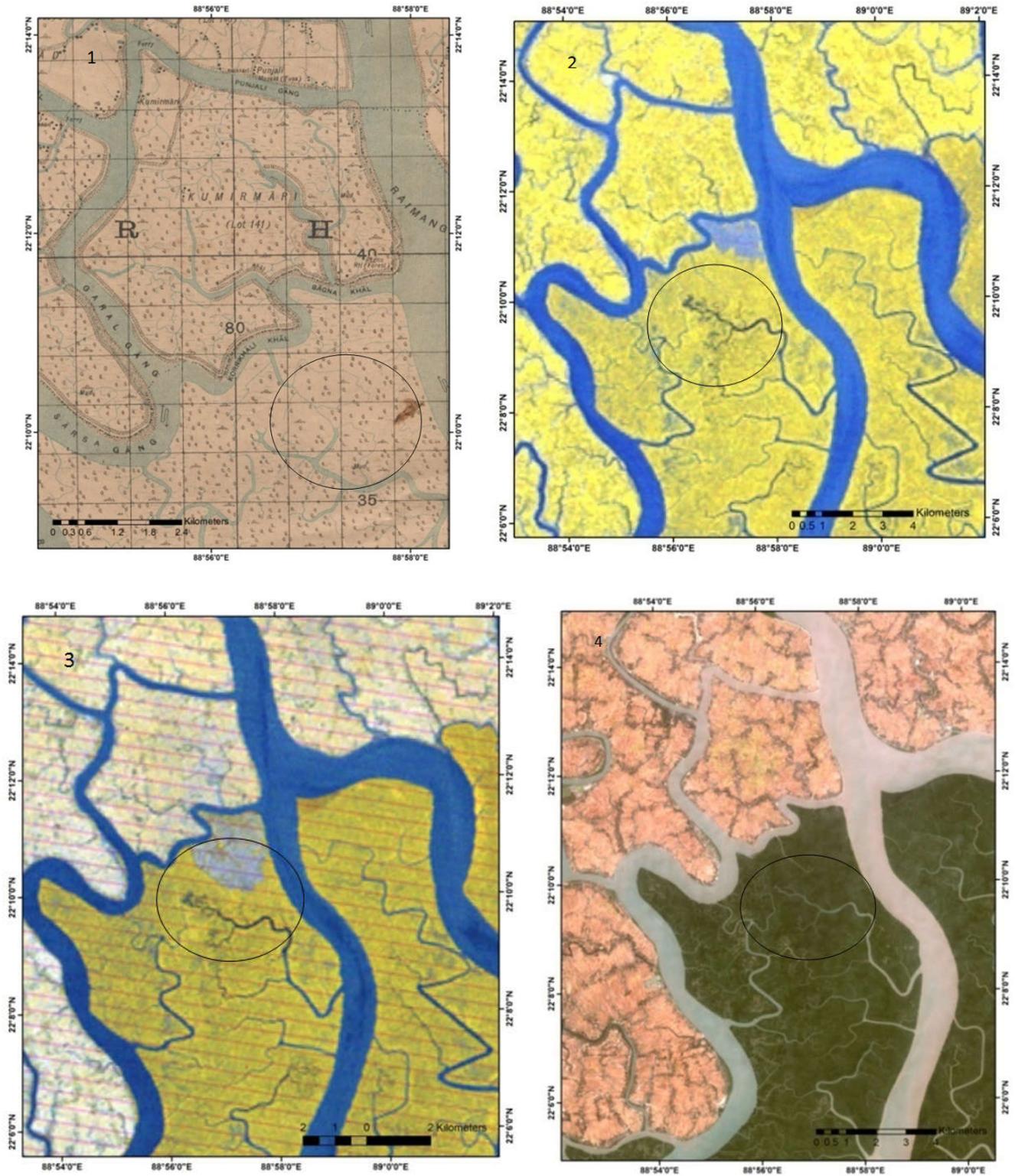
Marichjhanpi is separated from the Sundarban Reserve Forest by Jhilla and Garal rivers and is suitable for human habitation. The refugees landed at Marichjhanpi in April 1978 and they declared that they did not need any government aid. The only thing they demanded was to be allowed to stay at Marichjhanpi as citizens of the Union of India (Sen, 2009). The Marichjhanpi massacre was a direct outcome of the conflict between environmental preservation and peoples' rights. (Ghosh, 2014). In the morning of 19<sup>th</sup> August, 1978 20 launches armed with police force were taken to block the exit points of Marichjhanpi. The refugees refused to yield and so 200 boats carrying essential commodities were drowned. 30 launches of police were sent on 20<sup>th</sup> August but they couldn't take a single family to Dandakaranya and so opened fire. The morning of 24<sup>th</sup> January 1979 saw the commencement of a brutal saga of eviction. Blockade was starting secluding Marichjhanpi from its neighbouring settlements at Kumirmari. 30 launches of police and 2 steamers of BSF visited Marichjhanpi. The police arrested people, demolished the houses, looted food grains, clothes, bell metal plates, glasses, brass patches, gold ornaments, iron articles and hard cash. The young girls were molested, refugee boats were drowned and the refugees trying to reach the shore were beaten. Food and medicinal supplies from Kumirmari were severed leaving the refugees were severed leaving the refugees in utter starvation. Women attempted to cross river Bagna to reach Kumirmari for collecting food. Police fired and threw teargas shells. The refugees were wounded with gun barrels and boots. The islands were barricaded and a thousand refugees were arrested. About 375 people died of starvation, 2 committed suicide, 100 boats were seized yielding a total loss of Rs. 4, 15, 142. 60 people died in police firing while a local santhal man was killed. Other 5 carcasses were found afterwards in the river (Kalantor, 24<sup>th</sup> May, 1979).

The atrocities continued even in February 1979 when the refugees arrived at Kumirmari to collect food and water. Houses at Kumirmari were demolished and the inmates who provided shelter to the refugees were fired at (Kalantor, 26<sup>th</sup> February, 1979). Even on 16<sup>th</sup> February, Ananta Mondal, Arabinda Roy, Niranjana Barui, Kartik Sarkar, Ranajit Mondal, Krishnadulal Biswas were arrested when they came to collect food. (Kalantor, 26<sup>th</sup> February, 1979).



(Source: Reports by Raiharan Barui, General Secretary, Udbastu Unnayan Samity)

Fig. 3. Casualties in the massacre



**Fig 4. Transformation of Marichjhanpi ( from top left 1 – 1940 SOI Toposheet 79B/16, 2 – 1972, 3 – 1978, 4 – 2013; LANDSAT 1,2 MSS and LANDSAT 8 OLI TIRS respectively, encircled portions show transformation from coconut plantation to forest)**

Even on 13<sup>th</sup> May, houses were set on fire all of a sudden during night. People who rushed out of their houses were pulled to the police launches. Next morning when the children were attending classes in the school at Netajinagar, the school was set on fire. The children were separated from their mothers who were assaulted. The hapless people who visited Kumirmari were arrested.

The hapless people who visited Kumirmari were arrested. Even the police used to arrest the swimming refugees with lasso. Police launches used to patrol Marichjhanpi from all sides and the residents of Kumirmari too had to walk with their hands held up after evening. Fig 3 depicts that during the massacre most of the males went missing notably of the age group of 15 – 49 which resembles the working age group.

People who died of starvation number more in case of females of the age group of 0 – 15. In 96 cases children have died out of starvation. Lack of medical aid led to the loss of 174 children followed by males mostly. Diarrhea formed the major disease leading to deaths followed closely by cholera. Molestation of women showed varying numbers and thus the curve of polynomial 2<sup>nd</sup> order was fitted. Most of the cases of molestation were seen within 25 – 30 years.

### ***Marichjhanpi the question of man environment conflict how far was it justified***

The Marichjhanpi massacre has been described as a conflict between environmental preservation and development (Mallick, 1999). The government gave priority to the protection of wildlife and on this pretext forcefully evicted. The massacre is considered a “double betrayal” as the refugees had been considered as lesser mortals stationed at the periphery experiencing a social inferiority by the elite class of then Bengal (Jalais, 2007). The communal rifts after Mujibur Rahman’s assassination in 1975 affected the poorest and low caste Hindus who sought refuge in West Bengal. These people were sent to Dandakaranya, a semi arid and rocky place in East Central India at present at Chattisgarh (Jalais, 2005). The refugees from Khulna preferred Sundarbans where erstwhile neighbours had already set foot. Even when the refugees were at Dandakaranya, the Left Front government proclaimed that they would be rehabilitated in West Bengal once the Left Front gained power. The sites mentioned were either Sundarban area or vacant land scattered sporadically in the state. “In 1976 there were 5, 78,000 acres of vacant land in West Bengal, of which 2, 47,000 could be readily reclaimed for agriculture. With 1,36,000 agriculturalist refugee families the reclaimable land could have provided more than the 0.321 acres per capita land: person ratio then used by the agriculturalists (Chatterjee, 1992). In 1975, many of the refugees who were sent to transit camps at Mana and Dandakaranya started to move to a sand band called the Morich Chak which was part of Marichjhanpi island in the Gosaba police station. 16, 000 families could be settled there while another 30, 000 refugees could be stationed in nearby Dattapasur and in other places of Sundarban (Jalais, 2005). Marichjhanpi is an island in the northernmost forested part of the West Bengal Sundarban opposite to the settled portion of Kumirmari of Gosaba. This place had been cleared in 1975 and the mangrove vegetation was replaced by a government programme of coconut and tamarisk plantation to increase state revenue (Jalais, 2005). Even if the site was not covered with mangrove forest, the state stated that the refugees were “in unauthorized occupation of Marichjhanpi which is a part of the Sundarbans government reserve forest violating thereby the forest acts” and that the refugees settled at Marichjhanpi were deforesting the reserve forest. This statement was ironical indeed as the island had been priorly cleared in 1975 for coconut and tamarisk plantation by the government. Moreover, even if the area under Sundarban Reserve was demarcated in 1943, many islands had been reclaimed by deforesting them after 1943 even when they were within the boundaries of Sundarban Biosphere Reserve. The trees found at Marichjhanpi were less than 6 feet and the stunted growth of trees coupled with less possibility of food and infestation by fungi rule out the possibility of spotting tigers at Marichjhanpi.

From the SOI toposheet of 1940 and LANDSAT images of 1972, 1978 and 2013 it can be seen that there was coconut and tamarisk plantation at Marichjhanpi which have been transformed to forested patches. The satellite images from 1972 – 1977 show massive deforestation. It can be calculated that deforestation prior to the arrival of refugees amounted to 95% which had reduced to 5% after the arrival of refugees. The row plantation testifies that the plantation had been raised by the government. Even the government allegation of creation of a parallel government of Marichjhanpi by the refugees was false. The area was infested by pirates and smugglers dealing with Bangladesh. Police also molested young girls by forcibly taking them to Bagna police camp. To prevent this, the residents of Marichjhanpi had prohibited the entry of police. In the 1980s tiger attacks were usually hushed up. The body of the victim had to be abandoned in the forest to avoid the forest officials from seeing it. Even the widow of the victim had to say that the cause of death was a sickness of any kind or else the family was forced to pay for the dead trespassers (Jalais, 2005). Normalized Differential Vegetation Index is prepared to study the health of vegetation. As vegetation reflects most in near infrared band, NDVI which is calculated as  $NDVI = (NIR - RED) / (NIR + RED)$  forms a useful tool to assess the health of vegetation. NDVI has been prepared for the years 1972, 1978 and 1991. The NDVI of 1972 and 1978 show moderate vegetation at Marichjhanpi. However, that of 1991 shows healthy vegetation at the same site. This proves that Marichjhanpi was previously dominated by stunted growth of coconut plantations largely raised by the Government and by and by it has been shrouded with forests after the forceful eviction of the refugees.

### **Man Environment Conflict Case of Jambudwip**

Located in the Bay of Bengal, at a distance of 8 km to the south east of Sagar island and to the south west of Fraserganj of South 24 Parganas district of West Bengal. Jambu island is one of the ephemeral islands of Sundarban where area has been increasing sometimes and decreasing sometimes irrespective of the growth of mangroves. Jambu island was characterized by temporary settlement each year. In the year 2001 the island was seen to decrease in area and a vacant land was seen to increase. The fishermen had deforested about 144.7 ha of land. The island had been used for fishing since 1955 by about 15,000 fishermen. Detection of first clearing occurred in the year 1984 January, while maximum extension was found in 2002. Jambudwip has always been a witness to transient fishing community since 1955. The Jalia Kaibartya people began to stay in Sundarban after 1971. The people from East Bengal started staying Jambu. The factors favouring fish drying in Jambu were – i) Vast open sea ii) presence of natural creek iii) fire wood and iv) drinking water. The fishermen had been using a small portion of the island from October to February every year for fish drying. The fishermen vacate this uninhabited island and return to their villages at the end of the fish drying season. The fishermen used to enjoy permits and paid revenues and fees to the Forest department till 1998. Eviction started on grounds that forest can’t be used for non forest activities. The Government proposed an alternative site called Haribhanga for fishing. However, there was no forest cover there and the site was prone to cyclone the fishermen stopped fishing.

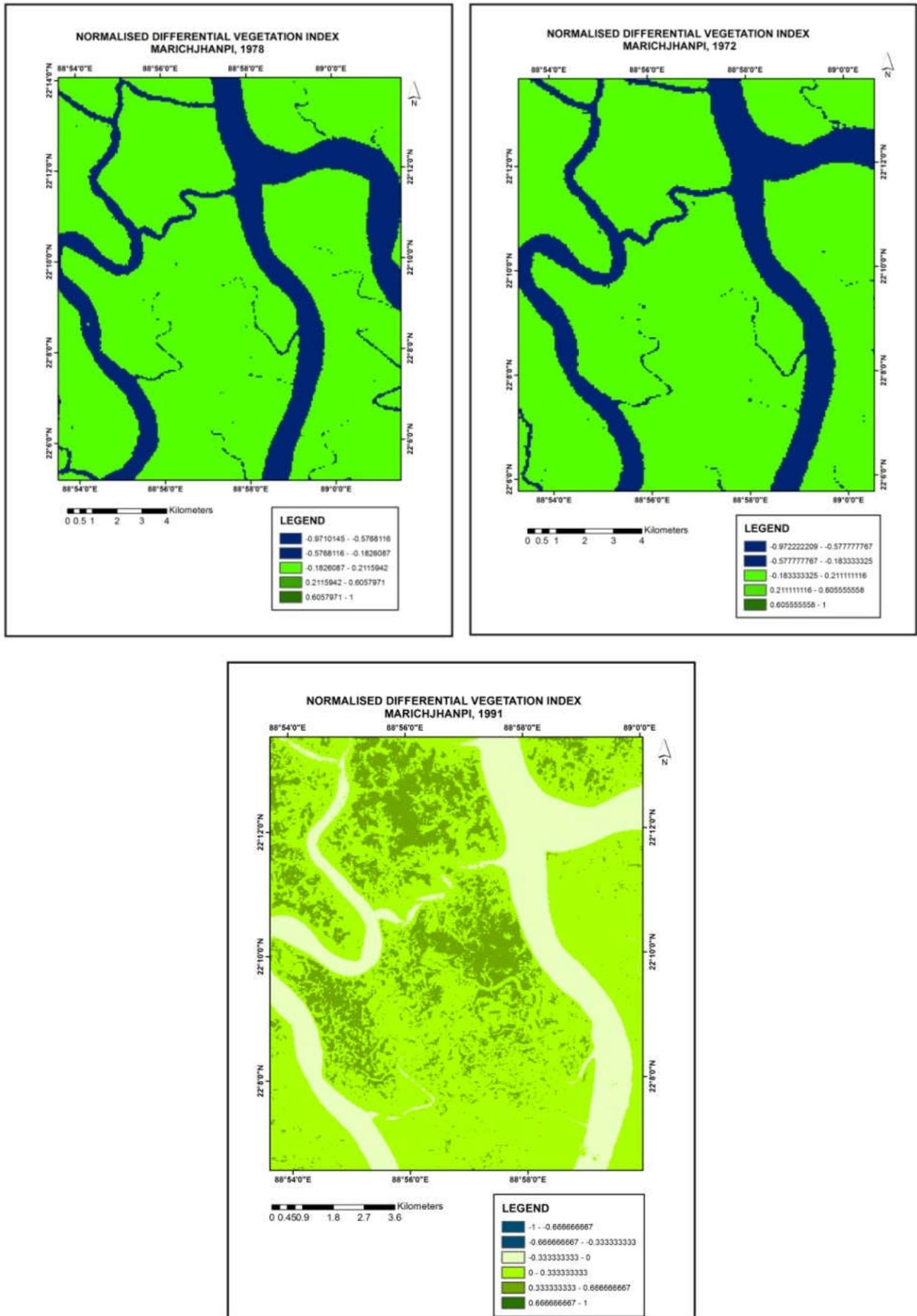


Fig. 5. Normalised Differential Vegetation Index (from extreme left 1 – 1972, 2 – 1978, 3 – 1991)

In the year 2002, the Supreme Court of India ordered the eviction of fishermen from the island of Jambudwip. This was done “to make way for a Rs. 5.4 billion tourism project sanctioned by the West Bengal government to the Sahara India Group” (Jalais, 2007). With commencement of this project, the fragile ecosystem of the Sundarban was to be transformed to city centre spreading over 250 km<sup>2</sup> of water surface. A business centre, a cinema theatre, a cultural centre, club houses, health clubs and a helipad were planned to be constructed. People United for Better Living In Calcutta (PUBLIC) of Kolkata, Bombay Environment Action Group (BEAG), Mumbai and EQUATIONS of Bangalore together with renowned novelist Amitava Ghosh spoke against the project and so the project was terminated for the time being. In the year 2002, the forest department burned down the fishing implements left by the fishing communities at the end of the fishing season. There was a tussle between the State Fisheries Ministry supported the fishermen, the forest ministry stood beside the forest department.

The intervention between these two ministries led to these decisions

- The fishermen were allowed to use the char area of the island from October to February for fishing; the char area was supposed to be decided according to the joint survey by the two departments.
- All fishermen would be provided with identity cards without which the fishermen would not be allowed to enter into the island.
- The fishermen wouldn't be allowed to construct permanent structures.
- Funds from the fisheries department would be used for fencing the part used by the fishermen.
- A case was to be made out to the Central Empowered Committee constituted by the Supreme Court to accommodate the requirements of the fishermen.

Jambudwip had a creek, Vishalakshmi creek and it has a stream which can be conveniently used for the purpose of fish drying. It had the advantage of mangroves at one side which used to protect the fish drying beds from natural hazards like cyclones. The Deputy Minister of Forest visited Jambudwip on 23<sup>rd</sup> October 2002. By and by the fishermen were barred from entering the island. The forest department had taken a tourism project in the island. It was decided to open up Jambudwip island to both domestic and foreign tourism since 2003. A Memorandum of Understanding (MoU) was signed between the State government and Sahara India. Eco – tourism project of Rs. 700 crore was to be undertaken at Sagar, Fraserganj, L – Plot, Kaikhali, Jharkhali and other islands. 750 acres of land were to be provided for the project. Subsequently pillars were erected and the creek was blocked. During the cyclone (12<sup>th</sup> November, 2002), the forest personnels didn't allow shelter to the fishermen. As a result 10 fishermen died as their fishing boats drowned. The names of the deceased fishermen in the incident at Jambu island are – Ratan Das, Anil Das, Haribilas Das, Anup kumar Halder, Sanjay Patra, Uttam Das, Gopal Pramanik, Dipak Pramanik, Biswajit Das and Bhola Ghosh. The surviving fishermen narrated that it was a normal day in the fishing season, even the weather reports predicted a clear day. However, the weather suddenly turned rough. Some boats

headed towards Jambudwip to escape the cyclone but were turned away by forest guards. The government had erected pillars on the creeks and iron chains were drawn from one pillar to another violating CRZ 1 notification (Ghosh, 2014). According to Dr. L.K. Banerjee, retired Jt. Director of the Botanical Survey of India, “Jambudwip has successive stages of vegetation, comprising mainly *Avicennia* species of mangroves, the species of grass like *Porterasia coarctata* and *Phoenix Paludosa*.” He had it that the species diversity on the island is not that significant. (Ghosh, 2014). Sebastian Mathew in his article Jammed in Jambudwip opined that the proofs of satellite images provided by NRSA prior to year 1998 need to be verified scientifically. In the midst of repeated interactions of the fisheries department and forest department, the forest guards set fire to the temporary huts of the fishermen with the death of 10 fishermen and forceful abandonment of the island by the fishermen. Allegations against the fishermen proclaiming that they were largely hailing from Bangladesh indulging in all types of illegal activities, destroying the eggs of Olive Ridley turtles were false as the fishermen hail from Namkhana, Patharpratima, Midnapore and neighbouring districts of West Bengal. The State police, Border Security Force, Coastal Guards and Customs have not reported cases of smuggling. Moreover, the fishermen use fixed bag nets locally called Behundi Jaal and the motorized boats remain far off with mechanized boats plying between the base and the fishing grounds in deep sea.

### Case of Jharkhali

Jharkhali the southernmost island of Basanti community development block was laden with mangroves and was settled comparatively later. The RSP, an ally of the Left Front government settled the migrants from Bangladesh to ensure the solidarity of the people. In the year 2000, the West Bengal government proposed to set up a nuclear power in Jharkhali. It is ironical indeed to see the eviction of East Bengali refugees from Marichjhanpi on the grounds of protecting the forest was followed by plans to set up a nuclear power plant risking the forest. (Mukhopadhyay, 2003). The Normalised Differential Vegetation indices of 1980 and 1991 show the transformation of healthy vegetation to moderate vegetation. This proves that the forceful establishment of settlement at Jharkhali over the years has plundered the mangroves which existed previously and has led to the deterioration of the health of vegetation. Hukaharaniya, an east – west flowing tidal river in Kultali community development block was converted to a freshwater canal to increase agricultural productivity by the Kultali Panchayat Samity and Sundarban Development Board then controlled by the CPIM group of the Left front government. The river was planned to be confined completely in order to start settlement. It was opposed by SUCI, the only Leftist opposition party in West Bengal. They were of the view that the blockage of the river not only interfered with the natural system leading to disequilibrium of fluvial dynamics but also led to the loss of the livelihood options of the commons. (Danda A, 2007).

### Conclusion

The tussle between human needs and the conservation of environment has been always conspicuous in the Indian

Sundarban. Be it eviction of East Pakistani refugees from Marichjhanpi on the grounds of conservation of the environment or from Jambudwip, there has also been another facet of the conflict as seen in the Hukaharaniya incident of Kultali block. The question of prioritization should be addressed giving equal priorities to humans and the environment. It is for the humans that environment exists. Environmental conservation is the need of the hour but this should not be done without addressing human needs. The irony of man – environmental conflict signifies that at times petty considerations prevail upon conservation and commons need to pay a hefty price. Harmonious living can embark upon a peaceful environment without strife.

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