

*A Study On –*

# Corporate Abuse In Sundarban



Society for Direct Initiative for Social & Health Action  
**(DISHA)**

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## **Introduction:**

Sundarban has been important to us not only for its unique ecology but also for the livelihood options that have evolved through ages intertwined with this ecology.

Cultivation, fishing, wood and honey collection all these traditional livelihood practices along with the unique ecology of this world heritage site are today severely under threat from intruding corporate interests.

*DISHA* has been associated with the traditional coastal fishing communities of India in their struggle for conservation of livelihood and coastal waters. It has been a long felt need to develop some insights of the interests and impacts the corporate business have in Sundarban.

This baseline study has been conducted on the basis of a review of existing statutes and published documents, interactions with concerned officials, survey and extensive discussions with local people – farmers, fishers, prawn seedling collectors, aquaculture owners, traders etc.

Being a baseline one the study aims at revealing the main trends and processes rather than making authentic quantitative analyses.

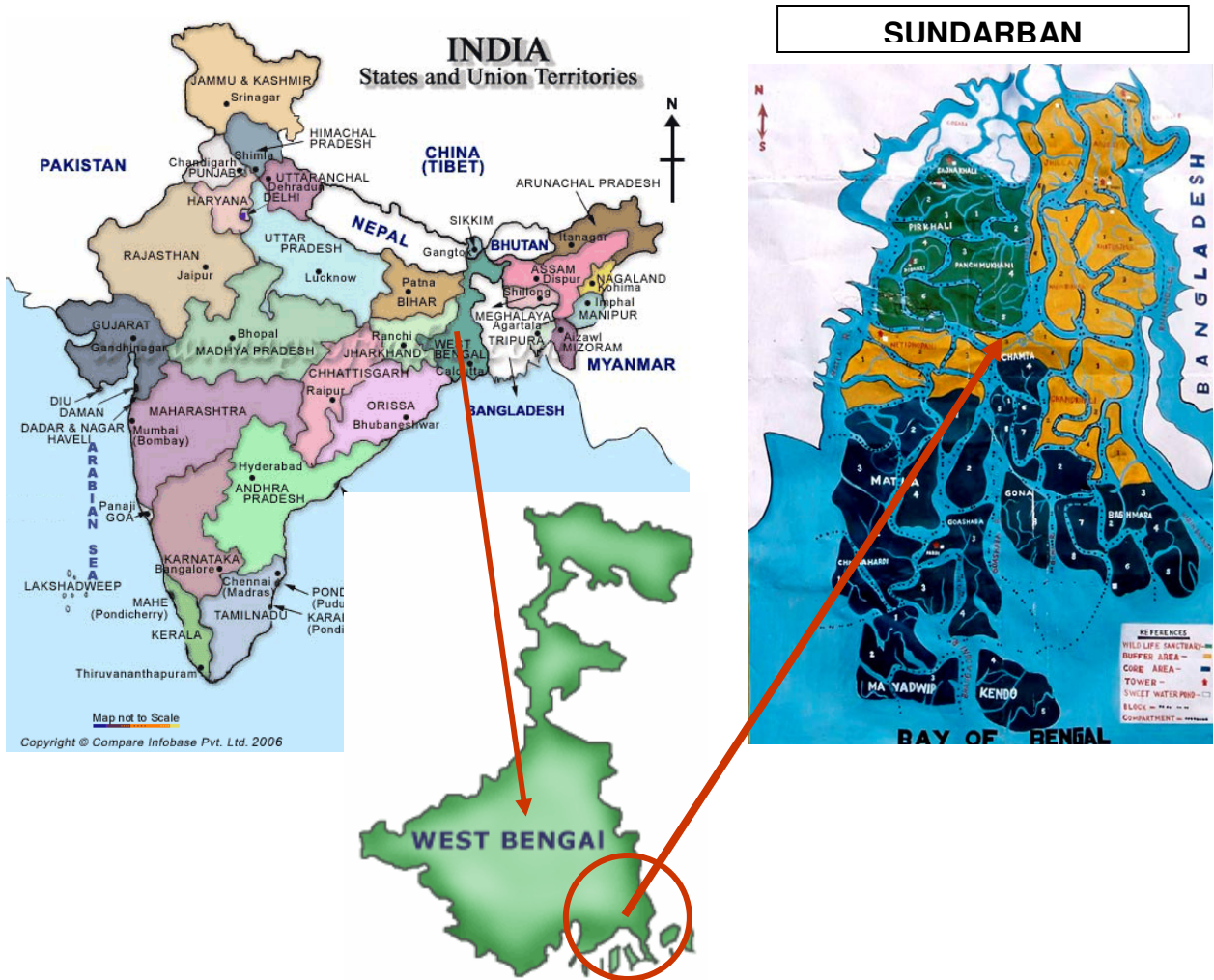
We dedicate this study to the suffering people living in this estuarine delta engaged in a struggle to protect their lives and livelihoods in the face of a rapidly deteriorating ecology and consequent shrinkage in livelihood options.

Kolkata 26 December 2006

*Pradip Chatterjee*

Chief Coordinator  
DISHA

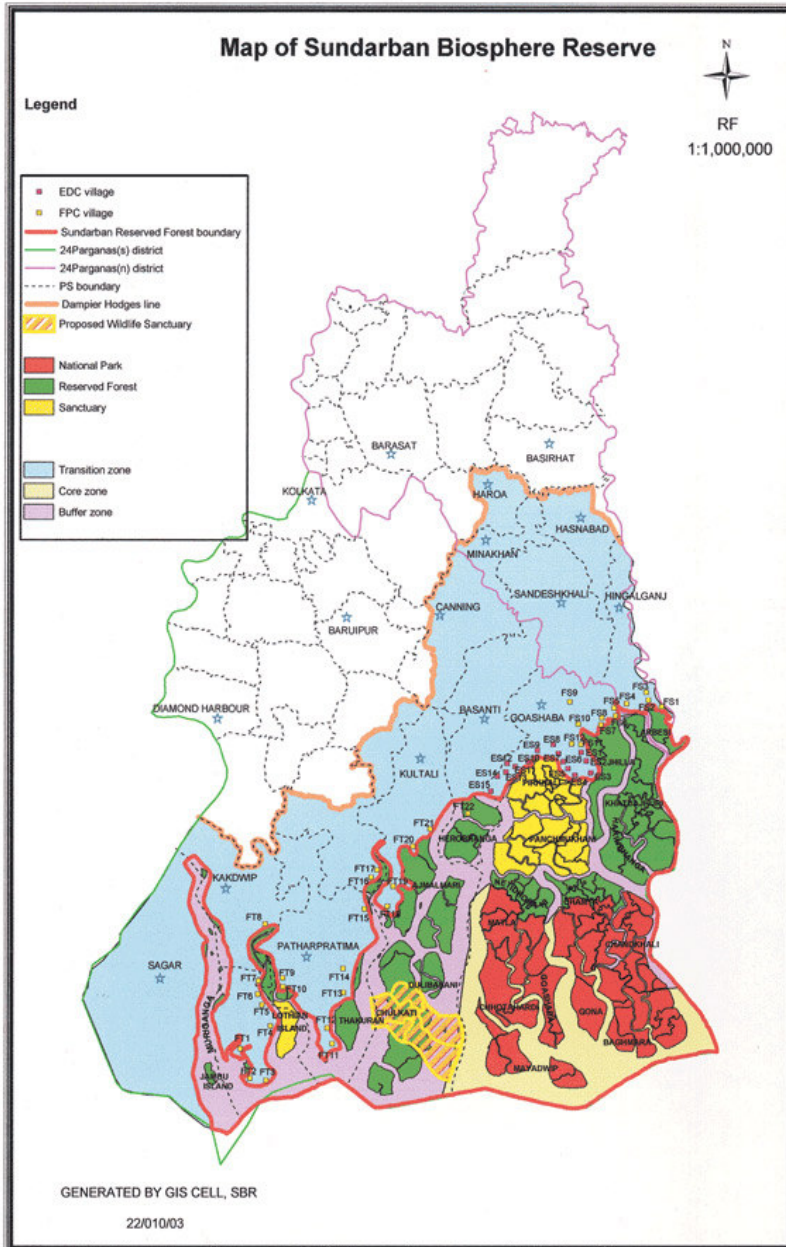
# Location of Indian Sundarban



**Sundarban** is the largest prograding delta on this planet formed at the estuaries phase of the Ganges-Brahmaputra river system. The Indian Sundarbans (Latitude  $21^{\circ} 32' - 22^{\circ} 40' N$ , Longitude  $88^{\circ} 22' - 89^{\circ} 0' E$ ) in the north east coast of India occupy 9630 square kilometer and are bounded by River Hooghly in the West, River Raimangal in the East, Bay of Bengal in the South and Dampier Hodges line in the North. There are 56 islands of various sizes and shapes in Sundarbans and these are separated from each other by a network of tidal channels, inlets and creeks, some of which act as pathways for both freshwater discharge from upland and to and fro movement of flood and ebb.

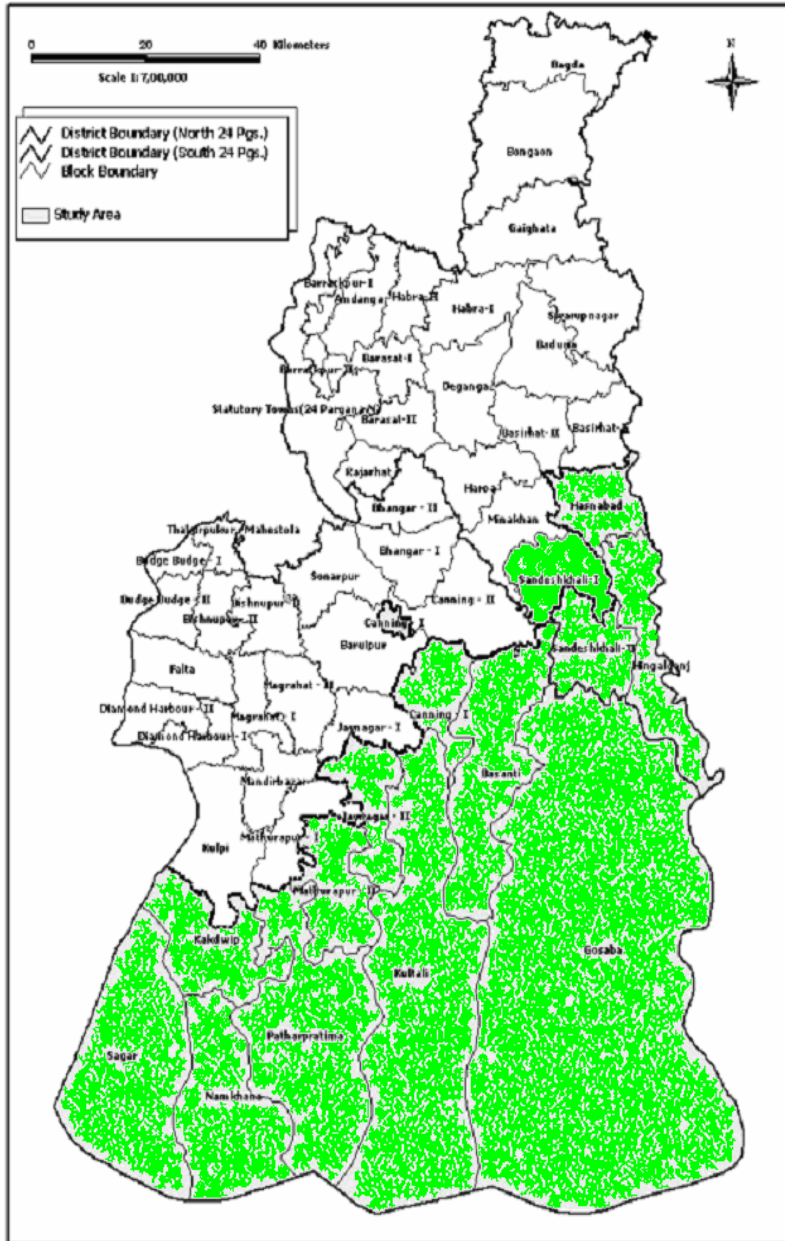
- It is the largest estuarine mangrove forest and the only mangrove tiger land on the globe.
- Sundarban mangrove forests comprising of more than 60% of total Indian mangrove form the largest nursery for fish and shell fishes and are responsible for the coastal fishery of whole of eastern India

# Sundarban Biosphere Reserve



1. Sunderbans Biosphere : 9630 sq km.
2. Inhabited Area : 4493.6 sq km.
3. Reserve Forest Area: 4263 sq km.
4. Tiger forest Area : 2585 sq km.
5. National Park : 1300 sq km.
6. River embankment : 3500 km.
7. Total cultivable Area : 310562 ha.
8. Under irrigation : 35041ha (11.28%).
9. Under second crop: 52233ha (16.82%).
10. District: North 24 Parganas .
  - a) Police Station : 5 .
  - b) Blocks : 6
  - c) No. of Gram Panchayats : 50
11. District: South 24 Parganas.
  - a) Police Station : 11 .
  - b) Blocks : 13 .
  - c) No. of Gram Panchayats : 140
12. Total number of mouzas: 1080
13. Number of inhabited mouzas: 1064
14. Number of islands : 54

# Study Area



## 14 Blocks in 2 Districts

### District: North 24 Parganas

- Hasnabad
- Hingalganj
- Sandeshkhali I
- Sandeshkhali II

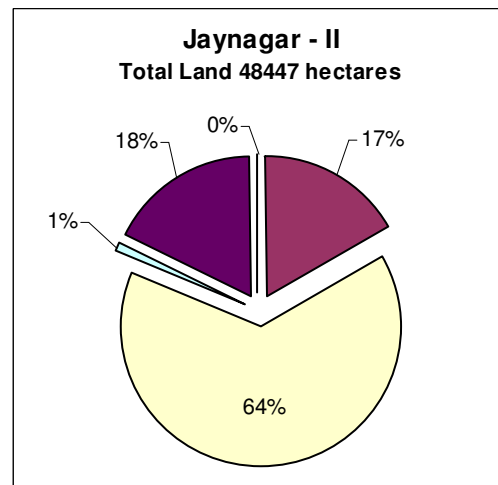
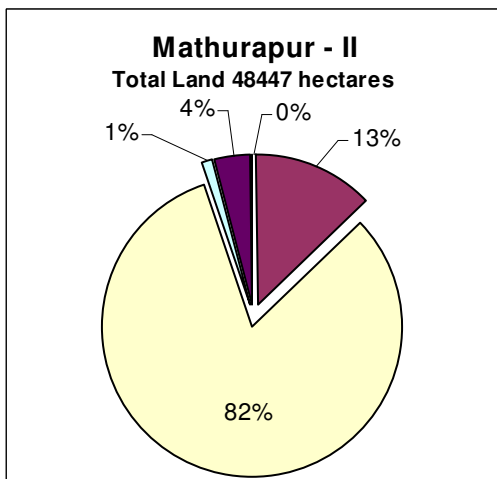
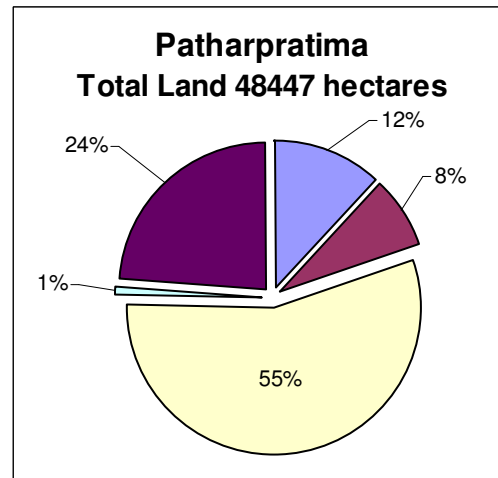
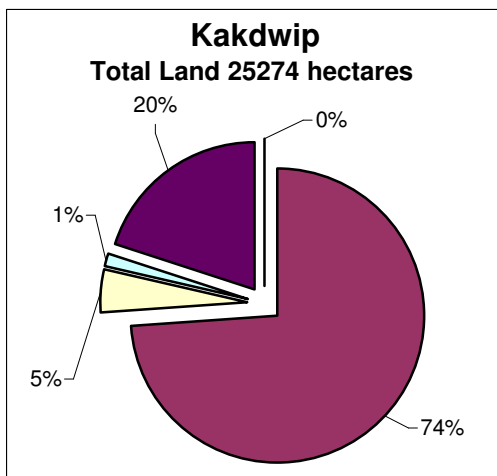
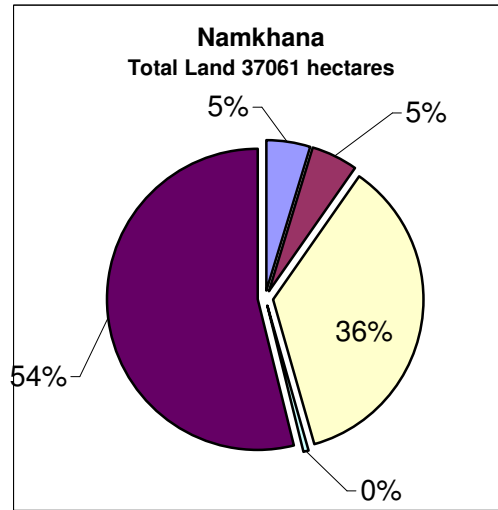
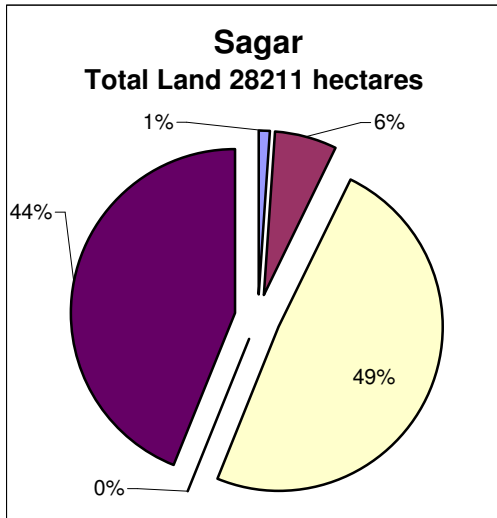
### District: South 24 Parganas

- Kultali
- Canning I
- Basanti
- Gosaba
- Sagar
- Kakdwip
- Namkhana
- Patharpratima
- Mathurapur II
- Jaynagar II

# Restrictive Statutes (The Legal Context)

Instruments of Restriction	Areas of Restriction
<b>1. The Wildlife (Protection) Act 1972</b>	Protection of scheduled flora and fauna. Example: Prohibition of hunting of dolphins, turtles etc. Prohibition of picking, uprooting etc of specified plants. The declaration of restrictions and consequent imposition of restrictions on entry and activities in sanctuaries, national parks and closed areas. [Ref: Restrictions in fishing in reserve forest area – Boat License Certificate (BLC) for Tiger Reserve and General Reserve Forest.]
<b>2. Forest (Conservation) Act 1980 &amp; Rules</b>	Prohibition on use / clearing of forestland for non-forest purposes.
<b>3. The Biological Diversity Act, 2002 &amp; Rules</b>	Restriction on access to biological resources or knowledge associated thereto for research or for commercial utilization or for bio-survey and bio-utilisation.
<b>4. Coastal Regulation Zone Notification</b>	CRZ-I applies to whole of Sundarban because it is ecologically sensitive and mangrove forest area. The restrictions are: <ol style="list-style-type: none"> <li>1. No new construction shall be permitted within 500 metres of the High Tide Line.</li> <li>2. No construction activity (except as listed under 2(xii) of the notification) will be permitted between the Low Tide Line and the High Tide Line.</li> </ol> No construction activity (except those specified under sec.3 of the notification) will be permitted within 50 meters or the width of the river/creek whichever is less.
<b>5. Coastal Aquaculture Authority Act &amp; Rules</b>	Compulsory registration of aquaculture farms. Restrictions on methods of farming, discharge of pollutants etc. (Almost total relaxation of the restrictions imposed by Supreme Court order of 1996)
<b>6. Marine Fishing Act, WB</b>	Restrictions on trawl and large mechanised fishing within 15 kms. of the coast. Prohibition of the use of mosquito (fishing) nets. Promulgation of no-fishing period (March 1 – May 30).

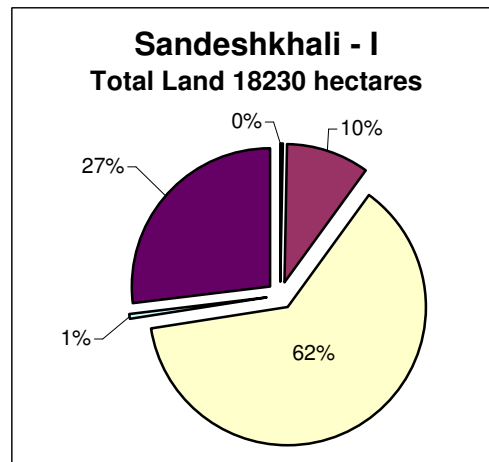
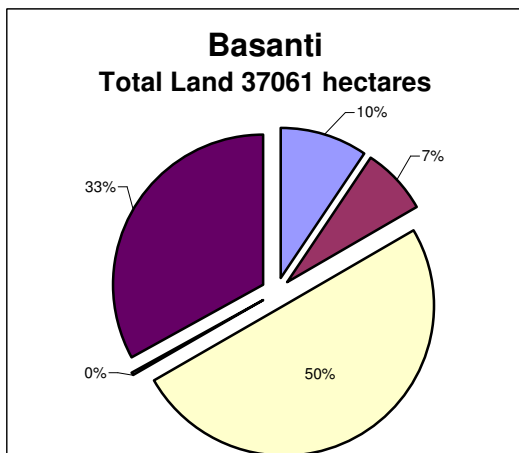
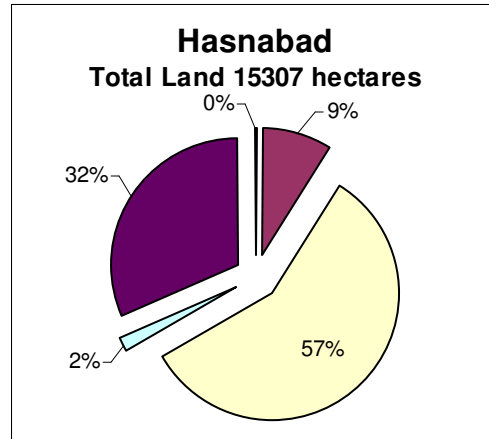
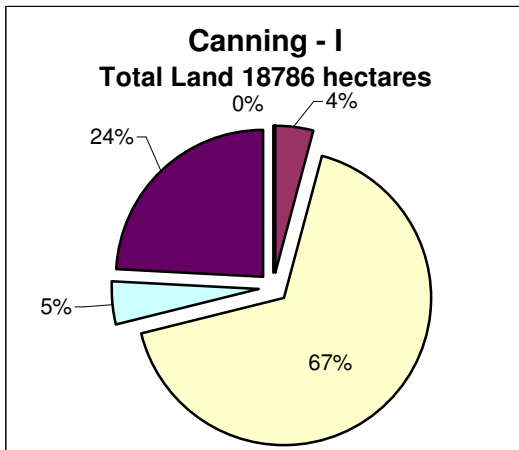
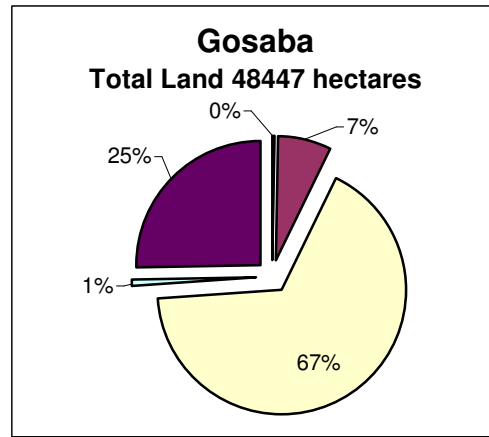
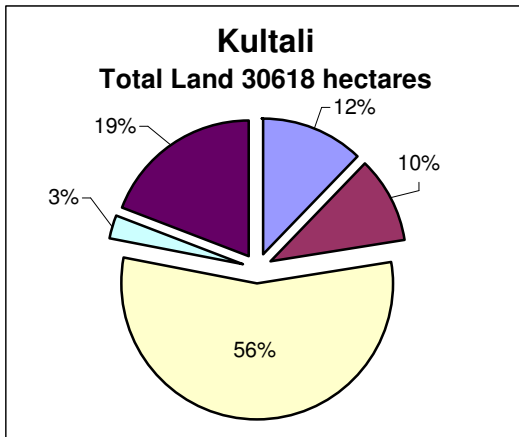
# Village Land Use in 14 Blocks of Sundarban



Forest
  Irrigated
  Un-irrigated
  Culturable Waste
  Not Cultivated

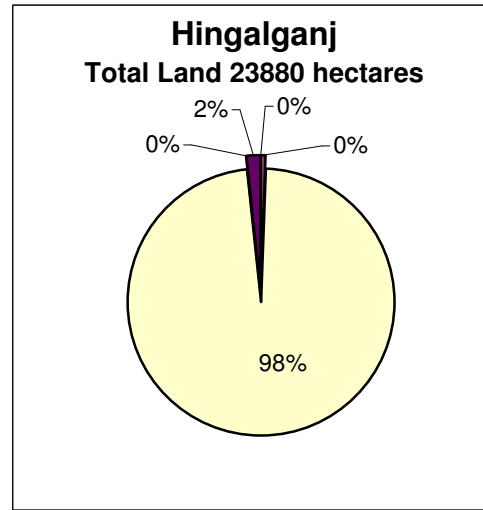
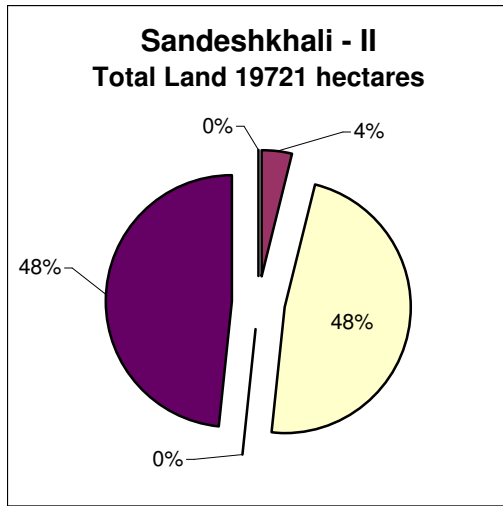


# Village Land Use in 14 Blocks of Sundarban



Forest
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# Village Land Use in 14 Blocks of Sundarban



● Forest   
 ● Irrigated   
 ● Un-irrigated   
 ● Culturable Waste   
 ● Not Cultivated

## Village Land Use in 14 Blocks of Sunderban

(In hectare)

Block	Forest Land	Irrigated Land	Unirrigated Land	Culturable Waste Land	Area Not Under Cultivation	Total Village Land
Sagar	298.42	1761.81	13762.44	0.00	12388.76	<b>28211.43</b>
Kakdwip	0.00	18660.10	1218.10	348.54	5046.96	<b>25273.70</b>
Namkhana	1714.59	1850.85	13333.91	181.87	19980.21	<b>37061.43</b>
Patharpratima	5826.52	3843.96	26817.87	381.02	11577.66	<b>48447.03</b>
Mathurapur - II	0.00	2989.22	18647.60	192.58	915.70	<b>22745.10</b>
Jaynagar - II	0.00	3178.67	11911.88	240.00	3293.98	<b>18624.53</b>
Kultali	3744.34	3171.76	16953.49	843.65	5904.99	<b>30618.23</b>
Canning - I	0.00	761.44	12583.37	879.48	4561.48	<b>18785.77</b>
Basanti	3860.03	2824.54	20228.32	108.33	13399.47	<b>40420.69</b>
Gosaba	66.00	2048.07	19822.21	266.24	7470.00	<b>29672.52</b>
Hasnabad	35.41	1376.48	8761.08	302.69	4831.83	<b>15307.49</b>
Sandeshkhali - I	70.24	1753.61	11383.36	90.21	4932.66	<b>18230.08</b>
Sandeshkhali - II	2.00	763.21	9437.75	0.00	9518.20	<b>19721.16</b>
Hingalganj	30.00	77.28	23402.80	0.06	369.97	<b>23880.11</b>
<b>Total</b>	<b>15647.55</b>	<b>45061.00</b>	<b>208264.18</b>	<b>3834.67</b>	<b>104191.87</b>	<b>376999.27</b>

# Corporate Abuse in Agriculture

## An Overview

Typically enough, corporate abuse in the Sundarban agricultural sector has resulted in the replacement of indigenous varieties of crop by hybrid varieties. It has led to a change in farming patterns as well. Replacement of saline water resistant crops by hybrid crops required more construction of bunds to block saline water ingress, thus intervening the natural process. Further, the replacement of cyclone resistant crop varieties increased the chances of crop damage. Although the changes have resulted in initial enhanced yield, it has simultaneously entailed *huge requirements of chemical fertilisers and pesticides manufactured by corporate houses and total dependence on them for seeds*. It has also destroyed the age-old practice of paddy field aquaculture, which had been a wonderful mode of natural resource management, of food access and economic benefit with substantially less ecological footprint. On account of its fragile ecology the chemical fertilisers and pesticides used in agricultural fields of Sundarban have a much deadlier effect than in other areas.

The survey findings are as follows –

- **Hybrid varieties of paddy and vegetables have overtaken the indigenous varieties.**

Even 15-20 years ago local seeds were used exclusively for agriculture in Sundarban.

Indigenous paddy varieties such as Patsari, Rupshal, Malabati, Khejurchhari, Talmugur, Benimadhab etc. were in use. These varieties were saline water resistant and also resistant to cyclonic lashes. As such, these varieties could be grown on saline water inundated lands and the damage done on the crops by recurrent cyclones was also smaller. The farmers could prepare seeds from the crops for next cultivations.

Indigenous vegetable varieties of tomato, brinjal, papaya, spinaches etc. have also been largely replaced by hybrid varieties within past 15 years.

The hybrid varieties provide increased yield by quantity but they need more water, chemical fertiliser and pesticides. Farmers cannot produce

seeds for future from farmed plants. Thus farming with hybrid seeds entails more and more dependence on external sources for seeds, chemical fertilisers and pesticides. These sources are dominated by corporate sector. Use of chemical fertilisers and pesticides destroyed paddy field aquaculture – a source of food and earnings for farmers.

- **The seeds are supplied by corporate business houses, in a few cases by Government companies. Some foreign companies were also found to supply seeds.**

*Supplier of paddy seeds >>*

Ramnagar Seed Farm  
RB Agro Enterprise  
Sufala  
Bengal Super  
Chaitanya Co.

*Supplier of vegetable seeds >>*

Ganga Kavery  
Indo-American Hybrid Seed India Ltd.  
Syngenta Seed India Ltd.  
Adventa Seed India Ltd.  
Mico & Company  
Numhem  
Takii & Company (Japan)  
Thai Co.

- **The fertilisers are supplied by corporate business houses, in a few cases by Government companies.**

*Supplier of fertilisers >>*

FCI  
IFCO  
TATA  
Nagarjun  
Hindusthan Fertiliser  
Coromondal Fertiliser  
Oswal Fertiliser

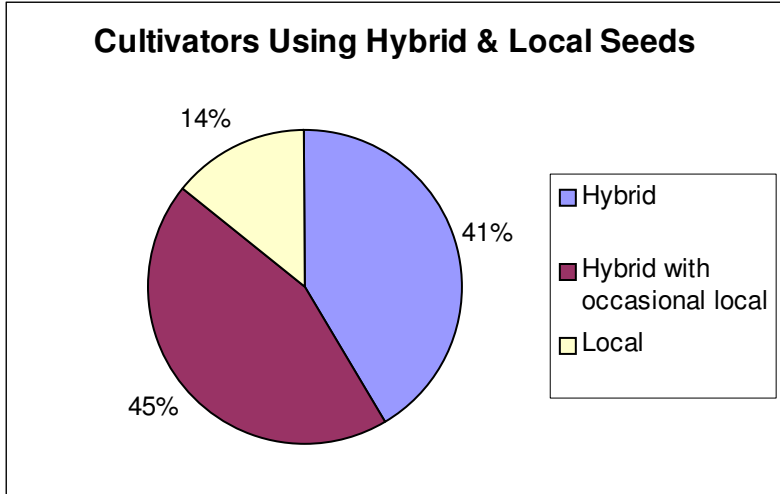
- **The pesticides are supplied mainly by corporate business houses. The presence of foreign companies in pesticide has been conspicuous.**

*Supplier of pesticides >>*

Hindusthan  
TATA  
Krishi Rasayan  
Agro Chemical India Ltd.  
EVINS  
Traxo  
Byer  
Rallies  
Pfizer  
Keminova

- **Farmers observed that if seeds are prepared from hybrid plants (vegetables) the results are –**

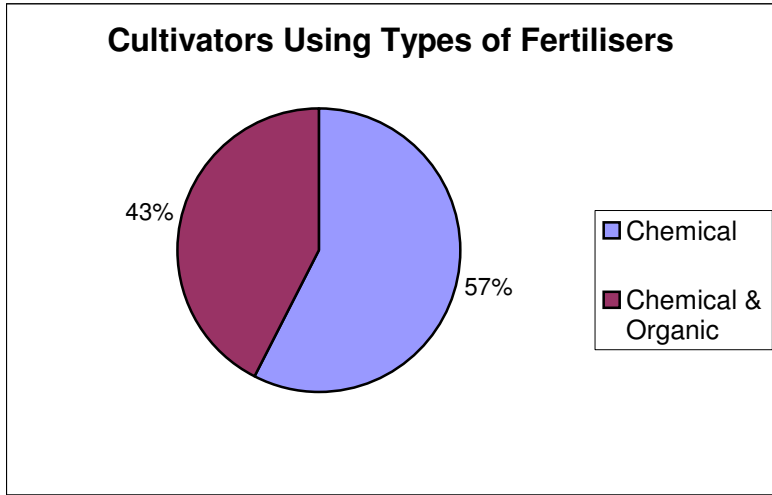
In the first year	> The yield is bad.
In the second year	> The yield is better than in the first year.
The third year onwards	> <i>The yields are worse.</i>



Use of local seeds has largely diminished over the past years.

86% of cultivators use hybrid seeds either exclusively or occasionally with local seeds.

Only 14% reported to use local seeds exclusively

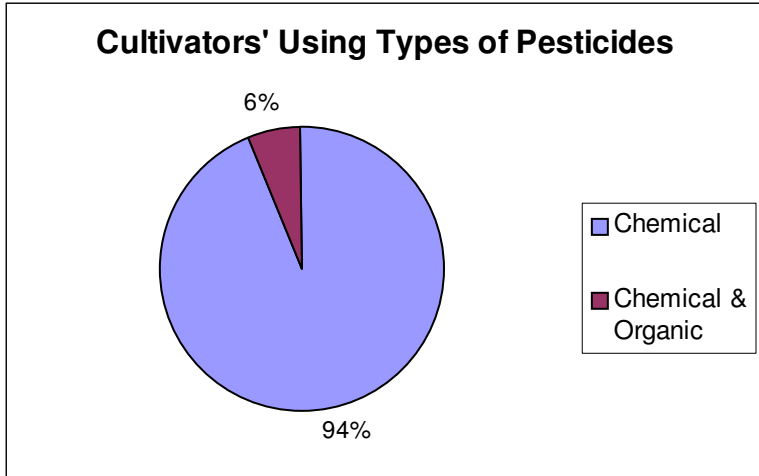


All cultivators under survey used chemical fertilisers.

57% used chemical fertilisers exclusively

43% of them reported to use supplements of organic fertiliser (compost) with chemical fertiliser.

None used organic fertiliser exclusively.



All cultivators surveyed use chemical pesticides.

94% use it exclusively.

Only 6% use supplements of organic pesticides.

The organic pesticides are also catered by business houses.

# Corporate Abuse in Shrimp Aquaculture & Seedling Collection

## *An Overview*

From seedling collection by poor village women and children to the small and big prawn culture farms along with a host of business interests at every level – prawn aquaculture today, as a whole, is subservient to national and international big corporate houses.

In December 1996, the Supreme Court of India ordered closure of all semi-intensive and intensive shrimp farms within 500 m of the high tide line, banned shrimp farms from all public lands, and required farms that closed down to compensate their workers with 6 years of wages in a move to protect the environment and prevent the dislocation of local people. If the 1988 collapse of farms across Taiwan provided evidence of the environmental unsustainability of modern shrimp aquaculture, the landmark decision of India's highest court focused attention to its socio-economic costs.

In Sundarban, shrimps have traditionally been grown in low-density monoculture or in polyculture with fish in tide fed waterbodies, or in rotation-culture with rice in the bheries.

Ecologically benign, these extensive practices yielded harvests that were sold in domestic markets at prices affordable by local residents.

Late 1980s and 1990s witnessed a spurt of big and intensive prawn farms by corporates in the Sundarban.

Induced by huge demand of seedlings (shrimp fry) for these farms Sundarban witnessed advent of mass seedling collection from its rivers and creeks that entailed mass destruction of juveniles of other species and a host of waterlives.

Ecologically harmful, the intensive farms produced mainly for export market. The price of the produce has been beyond the capacity of local residents.

Legal problems and diseases compelled majority of these farms to close down by early 2000.

Then started the era of small farms, tied to the corporates through agents and advances as well as for market access, majority of which do intensive or semi-intensive culture.

## Corporate Network in Shrimp Aquaculture: Present Status

- ☀ **Seedlings from collectors are purchased by agents, depot owners and sometimes directly by aquaculture farms. These agents and depot owners in their turn deliver the seedlings to aquaculture farms. Aquaculture farms purchase seedlings also from hatcheries.**

The market and culture of tiger prawn produced in aquaculture farms in Sundarban has shrunk due to diseases and chemical contamination. This has pushed down the impetus for seedling collection. Besides a good number of hatcheries have come up who are bringing seedlings from Tamilnadu, Andhra and Orissa – thus further pushing down the prospect of seedling collection.

- ☀ **Aquaculture farms sell their crop to the agents of big companies, who generally tie up the former through advances.**

Agents of big companies haunt the aquaculture farms and shrimp depots of riverine villages of Sundarban in search of cultured shrimp crop. These agents (B.B.Enterprise, Baisakhi Enterprise, 4 Star etc.) are attached to one or more prawn business houses like Magnum, IFB, ITC, Sundarban Sea Food, Coreline, Simpo, Tribeni, Sadap, Chitra etc.). It is observed that the number of these companies has decreased over the years. The agents actually work on commissions paid to them by the business houses according to the grades and quantities of prawn they manage to bring. But the transactions with aquaculture farmers are done in the name of the agents. The agents, as a part of their job pay advances to the farmers to ensure delivery.

- ☀ **Some of these big companies have prawn processing facility – as such other big companies deliver their prawns to these companies.**

Some of these big companies have their own processing facilities, those not having the processing facilities deliver their prawns to the former for processing and/or for market access.

- ☀ **After processing and packaging the prawns are delivered to international freighters and buying agents.**

After processing and packaging the prawns are delivered to international freighters and buying agents who in their turn deliver those to international corporate houses in Hongkong, Japan, USA and Europe.

- ☀ **The international corporates in Hongkong, Japan, USA and Europe who cater those to foreign markets.**

The international corporates in prawn trade are fed by companies based in countries of south and south-east Asia – Sri Lanka, India, Bangladesh, Thailand etc. The prawns then are catered chiefly to the western markets.



# Big Shrimp Farms

## Survey Findings

**Inception:** Late 1980s and 1990s

**Number:** Around 40

**Current Status:** Only a few are running. Others wound up due to non-viability in the face of legal constraints and viral attack.

**Culture Status:** Almost all practice intensive or semi-intensive methods save and except a few.

**Area:** 50 Bighas and more

**Land Used:** Farm, mangrove and low or wetland

**Inputs:** Seed, feed and chemicals/medicines

**Ownership:** Mostly Private (Corporates like ITC, HLL, IFB, AKG and others in the past) and a few Government owned.

**Sale of Crop:** To big processing and marketing houses by contract.

**Pollution:** Direct discharge of wastewater into rivers or low lands leading to rivers. People residing around the closed and running farms mentioned pollution of land and water

**Agitation Against:** There have been popular agitations against some of the farms

Block	Namkhana	Namkhana	Sagar	Basanti	Basanti	Kultali	Sandeshkhali-I & II
Village	Henry Island	Amrabati	Banijangal (chemaguri)	Jharkhali	Mundakhali	Shyamnagar	Rampur + Akunji para
Name of Farm (Project)	Henry Island Fisheries Project	Madhumita Project	SAHARA FARM	A:K:G	Andeeuil	G.O.Co	Hindusthan
Area of Farm(Project) / Village	Sundarban	East Amrabati	45 Bigha	Tridib Nagar	Basanti Gram Panchait	Merryganje	Akunjipara of Rampur Mouza
Inception Time	1997	1996	1994	1990-91	2003-2004	From british india	1991-92
Still Running?Yes (Y) / No (N)	Y	N	N	N	N	N	N
If not Running, When Closed?		2002	1997	Approx 2000	2005	1990-91(Approx)	1997-98
Area of the Farm	80 hec.	8 hec.	7 hec.	80 hec.	67 hec.	53 hec.	267 hec.
Character of Land: (Dhani (D) / Mangrove (M) / Wetland (W)/ Canal (C)]	M	M	D	M+W	M	M+W	D+W+C
Past Ownership: Govt. (G), Pvt. (P)	G	P	P	G	G	P	G+P
Due to the Farm - Destruction of.		3 Family habitats. 100-250 jobs. 20-25 Bigha mangrove.	35 Bigha	Approx 120 family habitats / Approx 300	Mangrove forest 500-600 Bighas	550 Bighas Agri. Land. / 400 Bighas Mangrove	1800 Bigah (app) Agri. Land. / 700-800 Jobs.
Farm Inputs: Feed (F), Medicine (N)	F+N	F+N	F+N	F+N		F+N	F+N
Was there any pollution ? Yes(Y) / No(N)	Y	Y	Y	Y	Y	Y	Y
If Yes, Nature of Pollution		Mangrove forest spoiled	Unemployment due to close of agriculture & project	Water & soil fertaility	Soil & Water. Increase in salinity	Soil & Water. Increase in salinity	Soil & Water
Observed Effects of Pollution	Not Reported	Affected agriculture. Increased soil erosion	Not reported	No cash crop production	Affected vegetation. Agricultural production decreased.	Affected trees and other vegetation.	Decrease in vegetation & agriculture
Any Agitation Against the Farm?	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported
Number of Employments in the farm?	80	10 15 people	14	120 Approx	60-70	30 at that time	100 App
How many local employees?	25	30-35	3	80	40-50	20 Approx	Very few
If Closed, Cause of Closure	-- --	Diminishing production & Viral Attack	Huge loss due to Viral Attack	Defficiency of technology & employee's willingness	Due to diminishing production & political reasons	Low production & political Reasons	Management problems,Water & Soil quality, Viral Attack
Present Use of Closed Farm's Land	-- --	Fallow Land	Small quantity of fishing.	Now locales farm in traditional way	Some people try to do privately	Private fishery	Small fisheries; Fallow Land

Survey of 7 Large Prawn Farms

# Small Shrimp Farms

## Survey Findings

**Number:** Number of farms range from nearly 100 to 1,500 per block.

**Area:** 5 Bighas to 30 Bighas

**Land Used:** Agricultural, silted river bank, wetland, mangrove and pond.

**Culture Status:** Most of the farms practice intensive and semi-intensive culture. A small minority actually practice traditional or improved traditional methods.

**Current Status:** Slowing down of farming cycle and lesser output. Frequent viral attack. Higher cost of inputs. Low price of crop.

**Inputs:** Seed, feed and chemicals/medicines

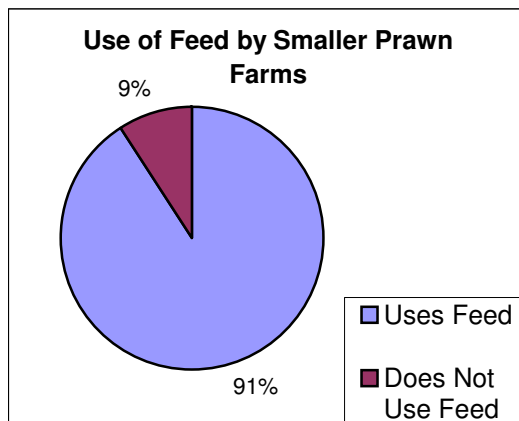
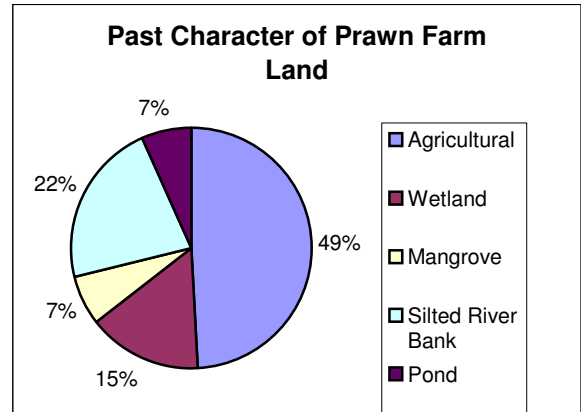
**Seeds:** Earlier mostly from local collectors/market, now more and more from non-local sources/hatcheries

**Sale of Crop:** Mostly to wholesalers, sometimes by contract.

**Ownership:** Private

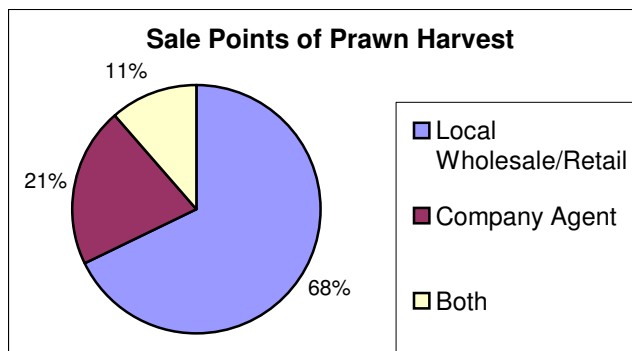
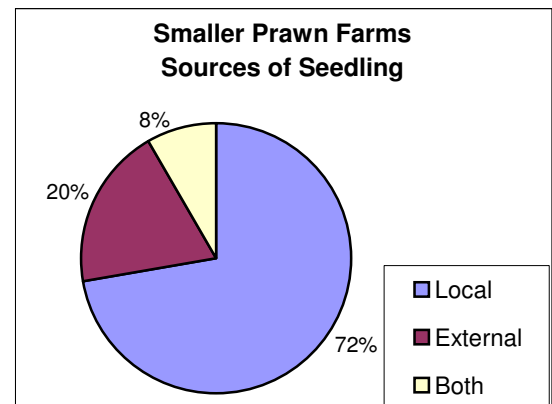
**Pollution:** Direct discharge of wastewater into rivers or low lands leading to rivers. Very few of the prawn farmers are aware of the pollution effect.

Prawn farms have encroached upon agricultural lands, silted river banks, wetlands and mangroves. Use of pre-existing ponds were also reported.



91% of the prawn farms surveyed were reported to use feeds like urea, phosphate, fishmeal etc. This indicates predominance of intensive culture.

Though majority of prawn farms still use locally available seedlings, use of hatchery-catered seedlings from external sources is the upcoming trend.



Harvested prawn is sold predominantly in local wholesale markets visited by both company agents and retailers. But in considerable cases company agents make direct purchases from prawn farms

# Seedling Collection

## Survey Findings

Thousands of people, mostly women and children collect wild tiger prawn seedlings for sale to shrimp farms. In recent years, the catch of these tiger prawn seedlings has been decreasing, signaling the concurrent decrease in other fish species.

According to a study of FAO/NACA in 1995, 50000 collectors supply wild fry to 33000 ha of shrimp farms in West Bengal, India.

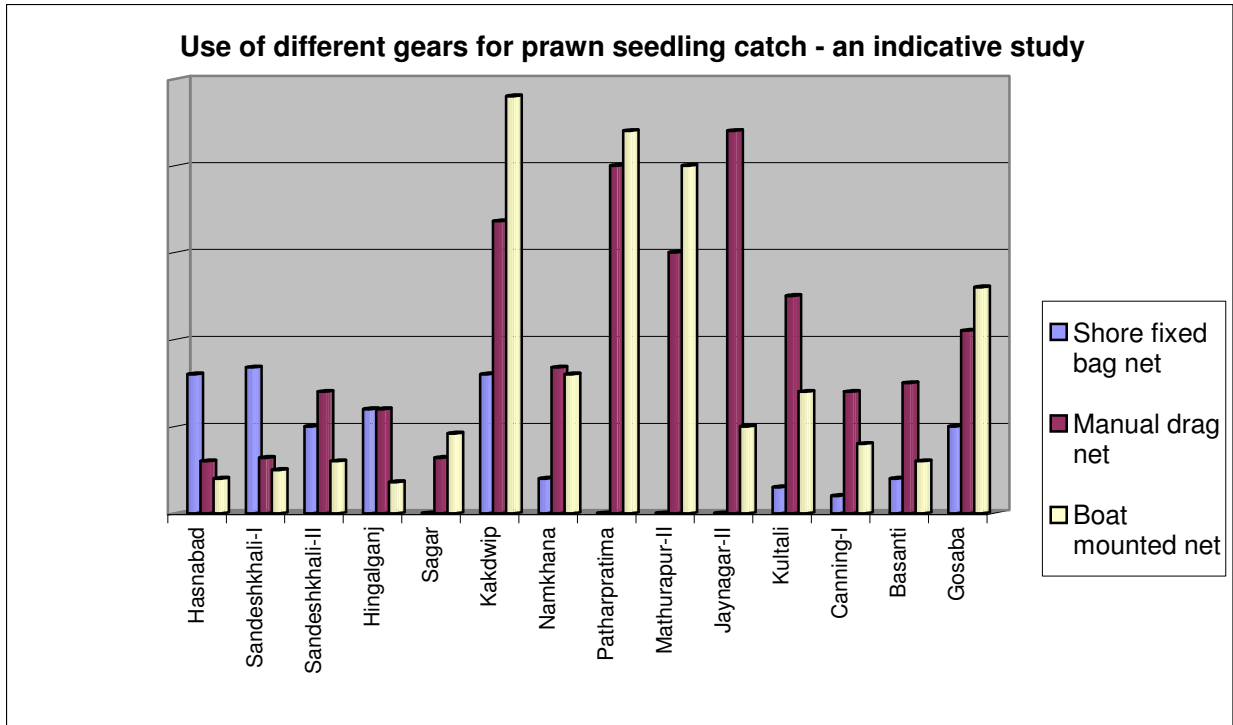
This mass catch of tiger prawn seedlings has been a direct result of the demand of corporate induced prawn farming. It destroys Sundarban's eco-system in two ways:

- ☹ The massive by-catch (up to 1000+ other juveniles are destroyed to catch a single seedling of tiger shrimp *Penaeus monodon*)
- ☹ Encroachment and continuous disturbance of riverbanks by fixed and drifting bagnets that hinder mangrove regeneration

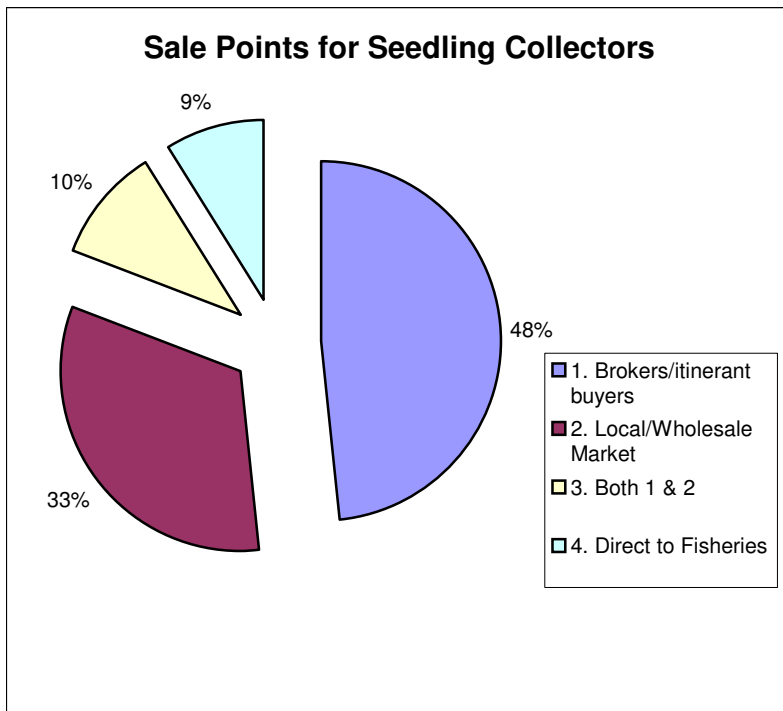
A man-made catastrophe that destroys major parts of a fish community (species) will have importance relative to the fact that a large part of the human population of an area has had its protein source eliminated or reduced.

## Survey Findings

- **People Involved:** More than 50,000 [estimated] in the districts of North & South 24-Parganas.
- **Device:** Banned mosquito net. Application - hand drawn drift net, fixed bag net and boat mounted net.
- **Age Group & Sex:** More than 30% belong to 10 – 20 years age group. Women constitute 75% of prawn seedling collectors.
- **Price of Catch:** Fetched up to Rs. 2,000+ per 1000 in the past. Now it has crashed even to Rs. 20 to Rs. 30 per 1000.
- **Reasons for Low Price:** Bangladesh market closed, hatchery seedlings preferred.
- **Selling Points:** Local market, wholesalers, agents of business houses.
- **Daily Income:** Ranges from Rs.20 to Rs.80.
- **Awareness of Harm to Nature:** Nearly 50% aware of the harm of bycatch destruction.



Manual dragnets are mostly in use in Jaynagar-II, Patharpratima, Kakdwip, Mathurapur-II, Kultali and Gosaba blocks. Shore fixed nets are reported to be in highest use in Sandeshkhali-I, Hasnabad, Kakdwip, Hingalganj and Sandeshkhali-II blocks. Boat mounted nets are in maximum use in blocks of Kakdwip, Patharpratima, Mathurapur-II and Gosaba.



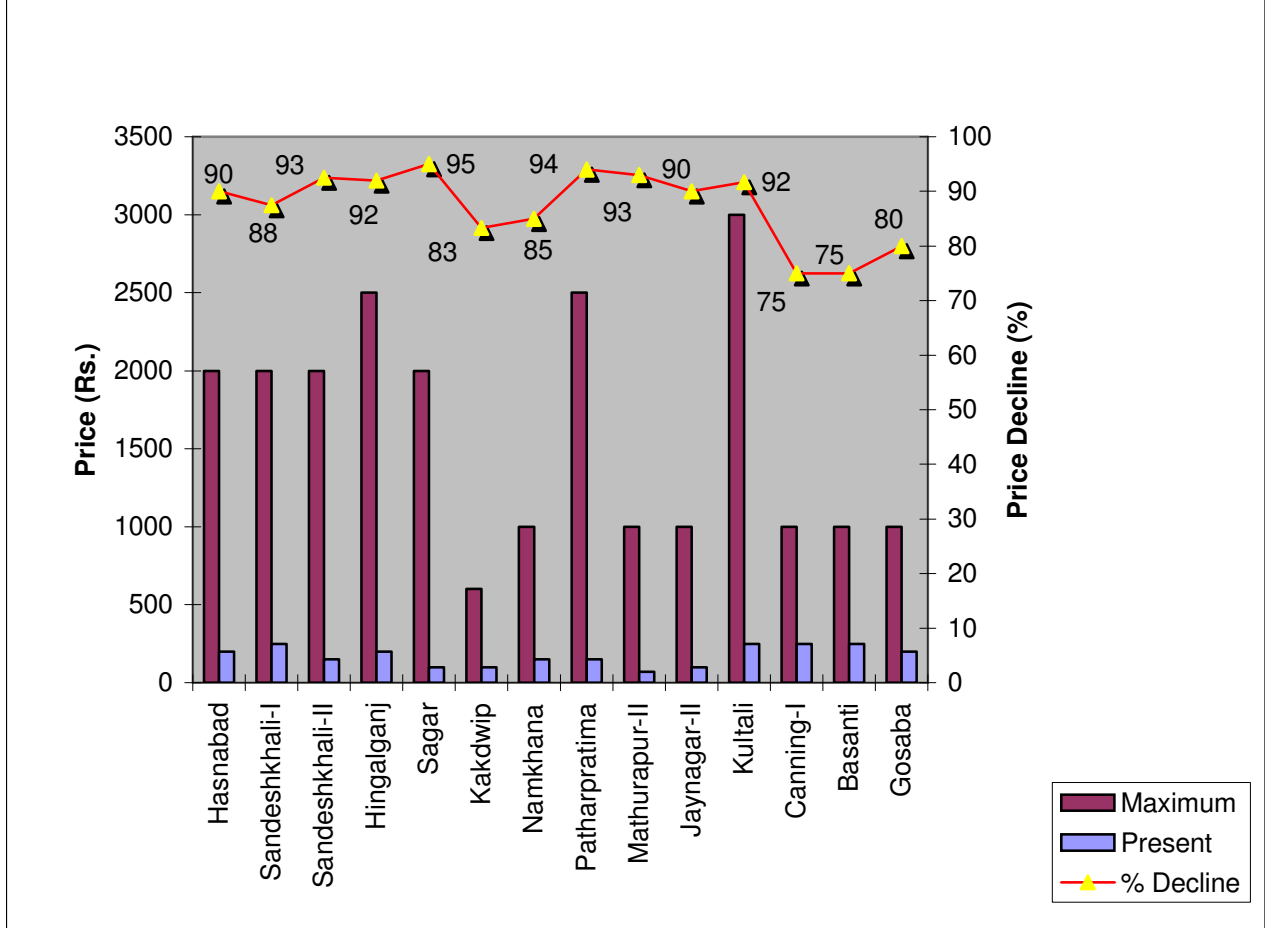
48% of Prawn Seedling collectors surveyed are visited by brokers or itinerant buyers near the collection points. The brokers generally act as middlemen traders between collectors and wholesalers or larger fisheries. Itinerant buyers include smaller fishery owners.

33% of collectors sold at local/wholesale markets.

10% of collectors sold both to brokers/itinerant buyers and local/wholesale markets.

9% of collectors reported direct sale to fisheries.

**Decline in Prawn Seedling Collectors' Sale Price (per 1000)**



There has been stupendous decline (even up to 95%) in the present price of prawn seedlings compared to the maximum price they retched in the past. The causes to this crashing of prices are manifold:

- A. The Bangladesh market (contributing to higher prices of prawn seedlings in adjacent blocks) has been largely closed.
- B. Economic and environmental causes have resulted in deterioration of fisheries with consequent decrease in seedling demand.
- C. The quality of wild prawn seedlings in the estuarine waters of the area has also declined – higher mortality and lesser growth rates, susceptibility to contract diseases are common complaints.
- D. Hatcheries have mushroomed. Seedlings are brought from South India, Sri Lanka and other areas, reared in controlled conditions and sold to buyers. These seedlings reportedly have lower mortality and higher growth rates and are less prone to diseases.

# The Corporate Connection Prawn Stakeholders



The corporate connection ties up the thousands of poor prawn seedling collectors to the international shrimp trade worth millions of dollars. The livelihoods of these poor people are put at the mercy of big business which thrives at their cost and passes on its problems on their shoulders. On the other hand the greed of the big business wrecks havoc to the biodiversity of Sundarban, barrens the most fertile waters of the world and thus destroys the livelihood of fishers and an abundantly accessible source of protein for the poor inhabitants.



# Deep Sea Port – What It Is

A modern deep-sea port, off Sundarban's coast near Sandhead, is in the pipeline. Government of India has already invited expression of interest from global consultants.

The massive constructions for the port with floating berths and other facilities along with the road and rail connections with the land as well as regular port operations once it is commissioned threaten the livelihood of local fishers who fish in this prime fishing area.

## THE PLAN:

- Modern Deep Sea Port with Cargo Handling & Transshipment Facility
- Off Sagar island – near Sandhead
- Handling & Transshipment of Hazardous Cargo
- Road/Rail Connection with mainland

## THE THREAT:

- Denial of access to prime fishing area
- Port pollution to destroy the fishery
- Massive construction efforts to wreck havoc to existing mangrove & estuarine ecology

## THE AFFECTED:

- Around 30,000 Fisher people & another 50,000 Fishworkers down the stream
- The most important fishery of the Bay of Bengal
- Very important and fragile mangrove & estuarine ecosystem

*Invitation for  
Expression of Interest by GOI*



**GOVERNMENT OF INDIA  
MINISTRY OF SHIPPING,  
ROAD TRANSPORT & HIGHWAYS,  
DEPARTMENT OF SHIPPING**

*invites  
EXPRESSION OF INTEREST  
for*

### **APPOINTING CONSULTANT FOR A MODERN DEEP SEAPORT IN INDIA**

The Department of Shipping, Ministry of Shipping, Road Transport & Highways, Government of India invites global 'Expression of Interest' (EOI) from reputed Consultants for development of a new "Modern Deep Sea Port" on the coastline of the State of West Bengal. The draught targetted for the proposed port is at least 16.5 meters. The Consultancy will be in phases. In the first phase, the Consultant would have to look at the possible sites on the coastline of the State of West Bengal and suggest suitable locations keeping in view the availability of draught, infrastructure facilities to be constructed, capital and maintenance dredging requirement, traffic potential, hinterland connectivity by rail and road and meteorological and other relevant conditions governing the stability of the port operations so that it is a techno-economically viable location. In the second phase, after the location has been approved by the competent authority, the consultant will be required to prepare a Detailed Project Report (DPR) covering all aspects including physical infrastructure facilities to be created, their layout & design, hinterland connectivity, traffic projection, techno-economic viability, market analysis preparation of cost estimates, etc. Finally, the consultant shall have to advise and assist in selection of contractor(s) and to supervise the successful implementation of the project. The Consultant, or the lead partner in the case of a consortium, who have successfully implemented a port / port terminal project of not less than Rs. 500 crores (US\$ 110 million) during the last 5 years, may kindly respond to this EOI. The draft Terms of Reference (TOR) of the proposed consultancy is available on the website of Department of Shipping at "shipping.nic.in" which is intended to be discussed with the parties to be short-listed from amongst those responding to this notice for EOI. After discussion with the short-listed parties, the TOR will be finalized with such modifications as may be deemed necessary.

The interested Consultants are required to submit their response by 31st July, 2006 (1600 hrs. IST) to the Deputy Secretary (PHRD), Room No. 413, Department of Shipping, Ministry of Shipping, Road Transport & Highways, Transport Bhavan, New Delhi-110001 giving details of their background, contact details and experience including evidence of their experience. The following conditions should be kept in mind while applying:

1. Offers received without evidence of having successfully implemented a port / port terminal project of not less than Rs. 500 crores (US\$ 110 million) during the last 5 years, are liable to be rejected.
2. Offers should be in sealed cover with "Expression of Interest for a Modern Deep Seaport in West Bengal" and "Not to be opened before 31st July, 2006" written on the cover.
3. Department of Shipping may invite detailed offer for the study from the short-listed Consultants or invite bids for consultancy afresh at its sole discretion.
4. National security considerations will be kept in view while short-listing the bidders at EOI and at subsequent stages.
5. Department of Shipping reserves the right to restrict the scope of the study.
6. Amendments to the EOI, if any, will be issued only on the website of the Department of Shipping at shipping.nic.in

**For any queries in this regard, you may contact  
Smt. Punya S. Srivastava, Deputy Secretary (PHRD),  
at e-mail: [punya.sri@nic.in](mailto:punya.sri@nic.in), Tel.+91 11 23321672,  
Fax + 91 11 23328549.**

# Deep Sea Port – Fisherpeoples’ Response

Around 30,000 fishers from Kakdwip, Sagar, Patharpratima and Mathurapur blocks of South 24 Parganas District fish in the area to be affected by the proposed Deep Sea Port. Another 50,000 fishworkers (vendors, sorters, carriers, driers etc.) down the stream depend on fishing in the area.

As in almost all other cases, this mega project is being thrown upon them without any information let alone consultation.

A survey of the fisherpeople working in the area was conducted to assess their awareness of the upcoming Deep Sea Port and its effects on their livelihood.

It was found that:–

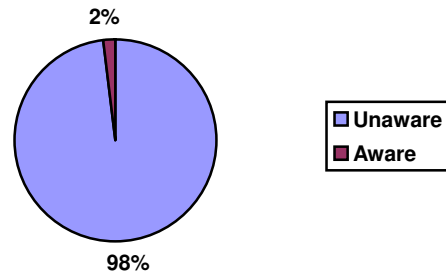
98% of the fisherfolk surveyed were unaware of the upcoming project.

When informed about the upcoming Deep Sea Port –

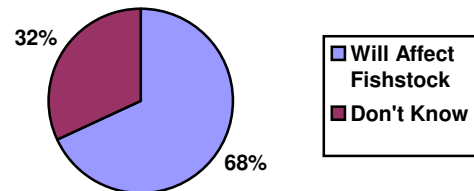
68% of the fisherfolk surveyed opined that the fishstock of the area is likely to be affected by the upcoming project. 32% had no idea of the likely effects.

77% of the fisherfolk surveyed opined that fishing in the area is likely to be barred by the upcoming project. 23% had no idea of the likely effects.

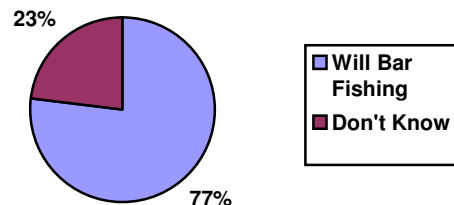
**Fisher peoples' Awareness Regarding Deep Sea Port**



**When Informed Fisherpeoples' Opinion Regarding Effect On Fishstock**



**When Informed Fisherpeoples' Opinion Regarding Bar On Fishing**



# Oil Exploration by ONGC

State-run Oil and Natural Gas Corp (ONGC) has made a huge gas find in Bay of Bengal 55 kilometers off Sundarban coast, with initial estimates suggesting reserves of about 21 trillion cubic feet. The first of the four ultra-deepwater wells to be dug in is expected to hit even larger reserves further down.

The company identified Trans Ocean Nordic after a two-year-long search. The rig is apparently capable of undertaking drilling operations in 13 to 20 metres of shallow water on a muddy seabed in conditions of high underwater current. It is a heavy Jacob's rig capable of drilling at close to 5,000 metres depth resting on three legs.

The adverse impacts of seismic testing for petroleum deposits using high intensity air guns in arrays towed by survey ships are well established and would still occur whether the exploration is being conducted in a search for gas or for oil deposits. Studies indicate seismic surveys have led to whale beaching and stranding incidents and can also affect commercial fish distribution, abundance and catch rates over a large geographic area.

Once exploratory drilling commences, the toxic drilling discharges and other routine drilling impacts are similar for either oil or gas exploration and eventual oil or gas development. Drilling operations produce huge quantities of waste. Hundreds of thousands of gallons of drilling muds routinely discharge toxic metals such as lead, mercury and cadmium. Produced water contains dangerous levels of carcinogens and radioactive materials such as benzene, toluene and arsenic.

Other impacts include –

**Turbidity** – Water around the drilling ground becomes muddy, lowering visibility and oxygen content. Unsuitable for fish habitat.

**Surface absorption** - The gas and oil spill is absorbed by the water surface, which hinders oxygen absorption. A large water area becomes unsuitable for fish habitat. The oily water inflicts immense damage on mangrove eco-system.

**Flocculation** – Oil or hydrocarbon droplets flocculate to form globules and settle on the sea floor rendering the area unsuitable for fish habitat and natural vegetation.

# Ship Building (Breaking) at Kulpi

Kulpi, situated north of Sagar Island, does not fall into the Sundarban. But being adjacent and immediately upstream any severe environmental problem at Kulpi will have direct impact on the ecology and livelihood of Sundarban.

Government of West Bengal and Mukand - Keventer Consortium & Associates (Mukand Group) signed an agreement on January 10, 1997 to develop a port-based economic zone on the eastern bank of the river Hugli, at Kulpi, in the South 24 Parganas district - 78 km. down from Kolkata.



## The Project:

Claimed to be comprehensively master-planned, the Kulpi Economic Zone proposes to combine modern all weather port facilities, environment-friendly ship breaking yard, and an industrial park in a single integrated hub. The industrial complex proposed would go a long way in improving the traffic on the port since the complex would mainly have port based industries (those which have significant exports and also need to import inputs)

## Project Status:

Projects studies completed:

- Techno-economic feasibility study by M/s. Howe (India) Ltd.
- Site selection study by M/s. Consulting Engineering Services (India) Ltd
- Traffic study by Indian Statistical Institute
- Land survey of entire Kulpi block (approx. 40,000 acres) completed

## Estimated Project Cost (As initially estimated by WBIDC):

Port facilities	Rs. 455 crore (USD 104.6 million)
Industrial park	Rs. 430 crore (USD 98.8 million)
Ship breaking complex	Rs. 40 crore (USD 9.2 million)
<b>Total</b>	<b>Rs. 925 crore (US\$ 212.6 million)</b>

## Other General Information:

Basic Features:

### Kulpi Port Complex

- Port is to be built on 3000 Hectares of land.
- Water front nearest to the sea and tranquillity suitable of all weather port.
- Natural depth of 12 meter.
- Wide navigational channel, suitable for ships to turn around.
- Major commodities to be handled: Coal and Containerised cargo

### Kulpi Industrial Park

- Approx. 5000 hectares of land for Industrial Park
- Propose to mainly house port based industries
- Smooth operations of this port would require close co-operation with Kolkata Port Trust (in charge of Kolkata and Haldia Port), as there are many areas of common concerns due to sharing of the same navigational channel and hinterland.
- The port is expected to have good traffic from the proposed industrial complex around it and also from adjoining industrial belts in Falta (Export processing Zone)/ Rajarhat/ Salt Lake City.
- The entire industrial complex in Kulpi has been approved and declared as a Special Economic Zone.
- To improve the connectivity with the hinterland, an expressway has been proposed between Kolkata and Kulpi.

## ***CONCERNS***

The Kulpi Port Complex and the Kulpi Industrial Park together claim 8,000 acres of prime land having farmlands, shops, residences and other utilities.

*Ship Breaking has been one of the most polluting industries ever known. The world is yet to experience an environment friendly ship-breaking yard.*

### **The impacts:**

- **Severe Air, Water and Soil Pollution**
- **Being immediately upstream will affect the ecology of Sundarban**
- **Occupational hazards to directly hit the most vulnerable.**
- **Will affect fishing**

# Mega Tourism in Sundarban

## *The Lure of High Investment Mega Tourism in Sundarban*

- ✧ **Sundarban's natural beauty attracts tourists**
- ✧ **Big business intends to cash in**
- ✧ **The government wishes to draw in big investment**

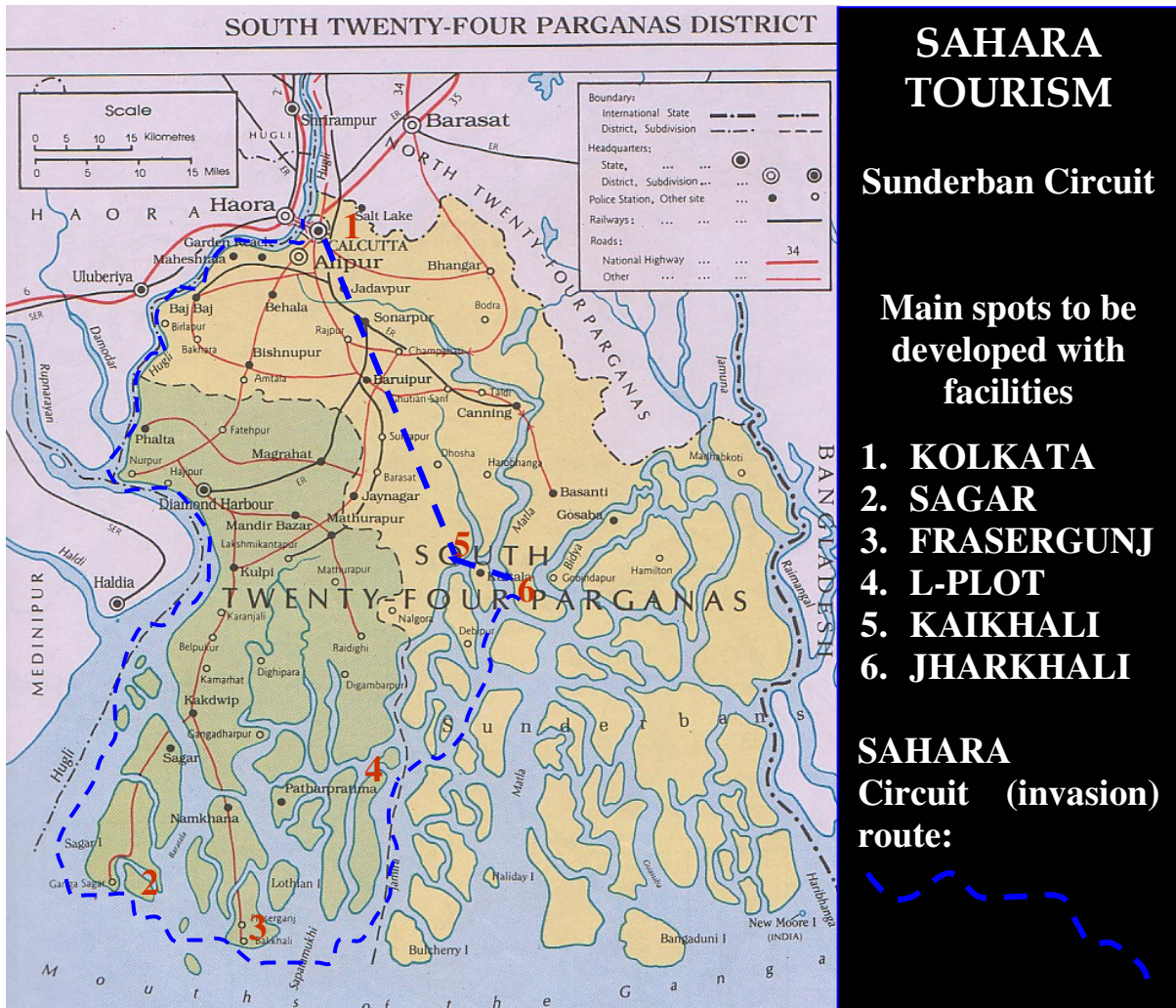
## *The Dangers of High Investment Mega Tourism in Sundarban*

- ✧ **Obstructs Fisher peoples' Access to Sea**
- ✧ **Shrinks On-Shore Working Area**
- ✧ **Displaces Habitats – Evicts Local Residents**
- ✧ **Destroys Community Livelihood Economy**
- ✧ **Degrades Environment – Pollution & Biodiversity Destruction**
- ✧ **Triggers Cultural Shock and Dislocation**

## *The Blemishes of Mis-Governance*

- **Lack of Transparency – People Do Not Know**
- **Lack of Democracy – Projects Thrown Over People Without Information & Consultation**
- **Little Concern for the Area's Ecology & Livelihood Practices**
- **Little Effort in developing really eco-friendly tourism based on local community**

# Sahara Mega Tourism in Sundarban: An Experience



The West Bengal Government signed a MoU with SAHARA industries in 2002 for a Rs.700 crore investment 5 Star Mega Tourism Project in the Sundarban.

While the Sahara publicly declared its commitment to preserve the ecology of Sundarban, its own website, during the period 2002-04, declared that its mega-tourism project would involve:

- ❑ Developing five virgin islands in the 36,000 sq.kms of water area in the Sundarban Delta as tourist destinations of global standing.
- ❑ 750 acres of land at Sagar Island, Fraserganj, L- Plot, Kaikhali, Jharkhali and other islands.
- ❑ Extensive encroachments on water space – declaredly 75% of the accommodation would be floating Boat Houses and 25% on-shore cottages, stylish huts and fabulous tents.
- ❑ The complex would also have a 30-seater, multi-utility high-speed power craft for a floating clinic, fire fighting and ultra modern security system and small, big ships.
- ❑ Helipad, Mini-Golf Courses and Water Sports
- ❑ High Speed Boats to explore the creeks of the deltaic estuary



**No wonder scientists and environmental activists were shocked at this open declaration of war upon an eco-zone internationally recognised as World Heritage Site and already under threat. Very few except the West Bengal government failed, or refused, to detect the pathetic doublespeak, the talk of preserving the pristine environment via floatels, high-speed power crafts and helipads.**

- # The statutory public hearing conducted for the project was done without proper public notice and availability of EIA & EMP documents**
- # The Government was approached a number of times by public forums and civil society organisations but there was total lack of transparency and response**
- # The land transfer process was on with land identification, demarcation and revocation of land titles (pattas)**
- # Thousands of fisher people and small farmers were likely to be affected**

## **Sahara May Go But The Danger Looms**

**⌈ Thanks to the national and international outcry together with the resistance of the local people, the Sahara Project was shelved. But it has not been officially discarded. That there remains ample cause of worry is evident from the fact that the Sahara India Parivar continues to display the project at its website.**

**⌈ There are other big investors waiting. Prospective investors include corporate houses like Bengal-Ambuja.**

**⌈ And the Government has shown its willingness to welcome such eco-cidal and anti-people project as SAHARA Mega Tourism in Sundarban.**