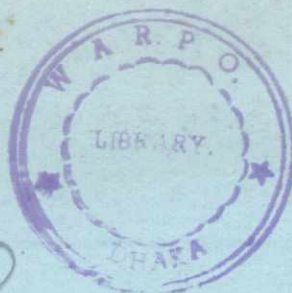


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MINISTRY OF WATER RESOURCES

BANGLADESH WATER DEVELOPMENT BOARD

BN-877  
A-1036

## MEGHNA ESTUARY STUDY

DATA VOLUME MES - 108

CHAR LEVEL FISHERIES DATA

September 1998

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DHV CONSULTANTS BV

in association with

KAMPSAX INTERNATIONAL  
DANISH HYDRAULIC INSTITUTE

DEVELOPMENT DESIGN CONSULTANTS  
SURFACE WATER MODELLING CENTRE  
AQUA CONSULTANTS AND ASS. LTD.

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**MINISTRY OF WATER RESOURCES**  
**BANGLADESH WATER DEVELOPMENT BOARD**

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6

Technical Note on:

**GRAVITATIONAL CIRCULATION SHAHBAZPUR MAIN CHANNEL**

Dhaka , March 1997

Project Name : Meghna Estuary Study (MES)  
Location : Shahbazpur Main Channel, Meghna Estuary  
Key words : Gravitational circulation, longitudinal salinity distribution  
Fine sediment transport

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## Introduction

"Char data base" is an important tool used for selection of potential chars (out of 23 chars) under MES project considering its available resources through screening. Char data base of different components of the project has been prepared/ being prepared from the available data / informations as obtained by field survey of the engineering department of the project.

So the information/ data presently available from the said engineering survey is not adequate for the preparation of char data base in fisheries component. Under such circumstances whatever data is available, has been taken into consideration in the preparation of fisheries char data base. Thus the informations / data which has been furnished in such exercise may not significantly serve the purpose. Hopefully the present fisheries data base exercise will be updated time to time subject to available facilities and opportunities. The information thus furnished in the preparation of char data base will be used in future for the preparation of Interim Development Plan of MES project. The inconvenience caused for the inadequacy in respect of fisheries data in such exercise is highly regretted. The data / information of different fisheries parameters has been discussed briefly under individual chars. The present report represent the "Char data base" of 14 chars. Any suggestions or informations to this regard for its overall development will be appreciated.

Thanks to the regards

## 1. Char Bara Baishdia

### Ponds

Reportedly there are approximately 200 no. of ponds covering an estimated area of 20 ha and total annual fish production of 14 Mt. at the rate of 700 Kg/ha/yr. The cultured fish species in the ponds includes: Major Carp (Indian), Tilapia and Exotic Carp. The pond fish production data (1996-97) of Char Bara Baishdia is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total Annual catch (Mt.) | Catch/Area Kg/ha/yr. | Species cultured                          | Remarks                  |
|---------------------|-----|-----------------------|--------------------------|----------------------|---|--------------------------|
| Pond                | 200 | 20                    | 14                       | 700                  | Indian Major carp + Exotic carp + Tilapia | Production rate is poor. |

Source: MES field Survey dated March 1997

### Khals/Floodplain

There are approximately 50 number of both seasonal/perennial khal covering an estimated area of 1000 ha (10 sq.km) and total annual fish production of 40 Mt. @ 40 kg/ha/yr. The fish harvested from the khal includes: Puti, Boal, Ayre, Tengra, Shol,Taki, etc. The fish production data (1996-97) of khals under Char Bara Baishdia is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total Annual catch (Mt.) | Catch/Area Kg/ha/yr. | Species cultured | Remarks                  |
|---------------------|-----|-----------------------|--------------------------|----------------------|------------------|--------------------------|
| Khals               | 50  | 1000                  | 40                       | 40                   | As stated above  | Production rate is poor. |

Source: MES field Survey dated March 1997

### Floodplain:

Floodplain fishery is absent.

### River:

There are 3 rivers covering an estimated area of 3000 ha (30 sq.km) and annual total fish production of 150 Mt. @ 50 kg/ha/yr. The fish harvested from the rivers include: Chewa, Poa, Bata, Ilish, Ayre, Tengra, guilla etc. The fish production data (1996-97) of river under Char Bara Baishdia is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species | Remarks                         |
|---------------------|-----|-----------------|------------------|----------------------|------------------------|---------------------------------|
| River               | 3   | 3000            | 150              | 50                   | As stated above        | Potential fisheries water body. |

Source: MES field Survey dated March 1997

**Inshore Fishery (within 5 Km from sea coast):**

Approximately 1100 Mt. of fish are annually harvested from inshore area of Char Bara Baishdia. The fish harvested from inshore area includes: Ilish, Pangash, Sea Cat fish, Mullet, Chewa, Poa, Shrimp etc. The fish production data (1996-97) of inshore area under Char Bara Baishdia is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha)      | Total Annual catch (Mt.) | Catch/Area Kg/ha/yr. | Species cultured | Remarks               |
|---------------------|-----|----------------------------|--------------------------|----------------------|------------------|-----------------------|
| Inshore             | -   | within 5 Km from sea coast | 1100                     | -                    | As stated above  | Potential water body. |

*Source: MES field Survey dated March 1997*

**Offshore Fishery (Beyond 5 Km.)**

Approximately 1500 Mt. of fish are annually harvested from offshore area of Char Bara Baishdia. The fish harvested from offshore area includes: Ilish, Shrimp, various Sea Cat fish. The fish production data (1996-97) of offshore area under Char Bara Baishdia is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total Annual catch (Mt.) | Catch/Area Kg/ha/yr. | Species cultured | Remarks               |
|---------------------|-----|-----------------------|--------------------------|----------------------|------------------|-----------------------|
| Offshore            | -   | Beyond 5 Km           | 15000                    | -                    | As stated above  | Potential water body. |

*Source: MES field Survey dated March 1997*

**Fisheries:**

No GOB fisheries office has been posted to Char Bara Baishdia.



## A1. SE-BHOLA

### 2. Char Rangabali

#### Ponds

Reportedly there are 700 no of ponds covering an estimated area 150 ha. The annual total fish production from these ponds is 80 Mt. @533 Kg/ha/yr. The fish cultured includes. Major Indian Carp and Exotic Carp. The fish production data (1996-97) of the ponds is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Species cultured                | Remarks                  |
|---------------------|-----|-----------------------|------------------|----------------------|---------------------------------|--------------------------|
| Pond                | 700 | 150                   | 80               | 533                  | Indian Major carp + Exotic carp | Fish production is poor. |

Source: MES field Survey dated February 1997

#### Khals / Flood land

Reportedly there is one khals known as "Rangabali Don" covering an estimated area of 3 Sq. Km (300 ha). The annual fish production is recorded to be 12 metric ton @40 Kg/ha/yr. The cultured fish species includes: Puti, Tengra, Poa, Icha, Ayre, Bata etc.

The fish production data (1996-97) of the available Khals is furnished below in the form of table.

| Sector of Fisheries | No. | Total water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Available fish species                   | Remarks             |
|---------------------|-----|-----------------------|------------------|----------------------|--|---------------------|
| Khal                | 01  | 300                   | 12               | 40                   | Puti, Tengra, Poa, Icha, Ayre, Bata etc. | Production is poor. |

Source: MES field Survey dated February 1997

#### Floodplain

Floodplain fishery is nil.

#### River:

There are 2 rivers covering an estimated area of 1000 ha with total annual fish production 80 Mt. @ 80 Kg/ha/yr. The fish harvested from the river includes: Chewa, Poa, Guilla, Ayre, Shrimp and Prawn etc. The fish production data (1996-97) of the available rivers under Char Rangabali is furnished below in the form of table:

| Sector of Fisheries | No. | Total water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species         | Remarks               |
|---------------------|-----|-----------------------|------------------|----------------------|--------------------------------|-----------------------|
| River               | 02  | 1000                  | 80               | 80                   | Chewa, Poa, Shrim, Guilla etc. | Potential water body. |

Source: MES field Survey dated February 1997



### Inshore Fishery (within 5 Km from sea coast):

Reportedly about 13500 Mt. of fish is harvested from the inshore area of Char Rangabali. The harvested fish from the inshore area includes: Chawa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn. The fish production data of inshore are under Char Rangabali (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha)             | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                                      | Remarks               |
|---------------------|-----|-----------------------------|------------------|----------------------|---|-----------------------|
| Inshore (Marine)    | -   | Within 5 Km. from sea shore | 13500            | -                    | Chewa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn | Potential water body. |

Source: MES field Survey dated February 1997

### Offshore Fishery (Beyond 5 Km):

About 15,000 Mt. of fish are annually harvested from offshore fishing area of Char Rangabali. The harvested fish includes: Ilish, Pangash, Chewa, Poa, Shrimp, Laitta, etc. The fish production data (1996-97) of offshore area under Char Rangabali area is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt.) | Catch/Area Kg/ha/yr. | Harvested fish Species                           | Remarks                |
|---------------------|-----|-----------------|-------------------|----------------------|--|------------------------|
| Offshore (Marine)   | -   | Beyond 5 Km.    | 15000             | -                    | Ilish, Pangash, Chewa, Poa, Shrimp, Laitta, etc. | Potential water bodies |

Source: MES field Survey dated February 1997

### Fisheries:

No GOB fisheries offshore is available in Char Rangabali area. Further information to this regard has been shown in the MES project Base Map, under T.F.O Galachipa.

## A1. SE-BHOLA

### 3. Char Montaz

#### Ponds

Reportedly there are 50 no of ponds covering an estimated area 810 ha. The annual total fish production from these ponds is 648 Mt. @800 Kg/ha/yr. About 50% of the pond is under culture fishery programme. The fish cultured includes. Major Indian Carp and Exotic Carp. The fish production data (1996-97) of the ponds is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Species cultured                | Remarks                  |
|---------------------|-----|-----------------------|------------------|----------------------|---------------------------------|--------------------------|
| Pond                | 50  | 810                   | 648              | 800                  | Indian Major carp + Exotic carp | Fish production is poor. |

*Source: MES field Survey dated 07.03.1997 - 08.03.1997*

#### Khals / Flood land

There are 10 Khals (perennial/seasonal) covering an estimated total area of 150 ha. The annual total fish production is reported to be 6 Mt. @40 Kg/ha/yr. The Khals are reported to be Khash land the harvested fish from the Khals includes: Carp, Cat fish, and other miscellaneous fish

The fish production data (1996-97) of the available Khals is furnished below in the form of table.

| Sector of Fisheries | No. | Total water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Available fish species | Remarks             |
|---------------------|-----|-----------------------|------------------|----------------------|------------------------|---------------------|
| Khal                | 10  | 150                   | 06               | 40                   | Carp + Catfish         | Production is poor. |

*Source: MES field Survey dated 07.03.1997 - 08.03.1997*

#### Floodplain

Floodplain fishery is nil.

#### River:

As per report there are 2 rivers (Tentulia, Buragurango) covering an estimated area of 1200 ha and the total annual fish production from this river is recorded to be Mt. @ 80 Kg/ha/yr. The fish harvested from the river include: Chewa, Poa, Guilla, Ayre, Shrimp and Prawn etc. The fish production data (1996-97) of the available rivers under Char Montaz is furnished below in the form of table:

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| Sector of Fisheries | No. | Total water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                     | Remarks            |
|---------------------|-----|-----------------------|------------------|----------------------|--|--------------------|
| River               | 02  | 1200                  | 96               | 80                   | Chewa, Poa, Guilla, Ayre, Shrimp and Prawn | Production is poor |

Source: MES field Survey dated 07.03.1997 - 08.03.1997

#### Inshore Fishery (within 5 Km from sea coast):

Reportedly about 8786 Mt. of fish is harvested from the inshore area of Char Montaz. The harvested fish from the inshore area includes: Chawa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn. The fish production data of inshore are under Char Montaz (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha)             | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                                      | Remarks   |
|---------------------|-----|-----------------------------|------------------|----------------------|---|---|
| Inshore (Marine)    | -   | Within 5 Km. from sea shore | 8786             | -                    | Chewa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn | Fishing is done by long line, set bagnet + gillnet. |

Source: MES field Survey dated 07.03.1997 - 08.03.1997

#### Offshore Fishery (Beyond 5 Km):

About 10,000 Mt. of fish are annually harvested from offshore fishing area of Char Montaz. The harvested fish includes: Ilish, Pangash, Chewa, Poa, Shrimp, Laitta, etc. The fish production data (1996-97) of offshore area under Char Montaz area is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                           | Remarks |
|---------------------|-----|-----------------|------------------|----------------------|--|---------|
| Offshore (Marine)   | -   | Beyond 5 Km.    | 10,000           | -                    | Ilish, Pangash, Chewa, Poa, Shrimp, Laitta, etc. | -       |

Source: MES field Survey dated 07.03.1997 - 08.03.1997

#### Fisheries:

No GOB office is available in Char Montaz.



#### 4. Char Kukri Mukri

##### Ponds

Culture fishery is practised in the Char. But there is no available data as to the number of Ponds, its area and fish production.

*Source: MES field Survey dated April, 1997*

##### Khals / Flood land

Khals / Creeks are reported to exist there but there is no available data as to their number, area and amount of fish production.

##### Floodplain

Flood land is absent.

*Source: MES field Survey dated April, 1997*

##### River:

No available data .

##### Inshore Fishery (within 5 Km from sea coast):

Approximately 1200 Mt. of fish are annually harvested from inshore area of Char Kukri Mukri. The harvested fish from the inshore area includes: Shrimp, Chewa, Poa, Ilish, Sea Cat fish. The fish production data of inshore under Char Kukri Mukri (1996-97) is furnished below in the form of table :

| Sector of Fisheries | No. | Water area (ha)             | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species | Remarks               |
|---------------------|-----|-----------------------------|------------------|----------------------|------------------------|-----------------------|
| Inshore             | -   | Within 5 Km. from sea coast | 12000            | -                    | As stated above.       | Potential water body. |

*Source: MES field Survey dated April, 1997*

##### Offshore Fishery (Beyond 5 Km):

Approximately 15,000 Mt. of fish are annually harvested from offshore fishing area under Char Kukri Mukri. The harvested fish includes: Ilish, Shrimp, Sea Cat fish, Pangas, etc. The fish production data (1996-97) of offshore area under Char Kukri Mukri is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt.) | Catch/Area Kg/ha/yr. | Harvested fish Species | Remarks                |
|---------------------|-----|-----------------|-------------------|----------------------|------------------------|------------------------|
| Offshore            | -   | Beyond 5 km.    | 15000             | -                    | As stated above        | Potential water bodies |

*Source: MES field Survey dated April, 1997*

##### Fisheries:

No GOB fisheries office has been posted to Char Kukri Mukri.



## 6. Char Biswas

### Ponds

There are 50 no. of ponds covering an estimated area of 5 ha and total annual fish production is 4 metric ton @ 800 kg/ha/yr. The fish cultured in the ponds includes:- Major Carp + Exotic Carp. The fish production data (1996-97) of ponds under Char Biswas is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species | Remarks                  |
|---------------------|-----|-----------------------|------------------|----------------------|------------------------|--------------------------|
| Pond                | 50  | 5                     | 4                | 800                  | As Stated above        | Fish production is poor. |

Source: MES field Survey dated March, 1997

### Khals / Flood land

There are 6 Khals (seasonal) covering an estimated total area of 200 ha and total annual fish production of 9 metric tons @ 45 Kg/ha/yr. The fish harvested from the Khals includes: Chewa, Laitta, Poa, Bata, Boal etc. The fish production data (1996-97) of Khals under Char Biswas is furnished below in the form of table:

| Sector of Fisheries | No. | Total water area (ha) | Total Annual catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish species | Remarks             |
|---------------------|-----|-----------------------|-------------------------|----------------------|------------------------|---------------------|
| Khal                | 6   | 200                   | 9                       | 45                   | As stated above        | Production is poor. |

Source: MES field Survey dated March 1997.

### Floodplain

Floodplain fishery is absent.

### River:

Reportedly there is one big river known as Bura Gaurango river covering an estimated area of 3.5 sq.km (350 ha) and the total annual fish production is about 24.5 Mt. @ 70 Kg/ha/yr. The fish harvested from the river include: Shrimp, Ilish, Loitta, Chewa, Poa, Cat fish etc. The fish production data (1996-97) of river under Char Biswas is furnished below in the form of table:

| Sector of Fisheries | No. | Total water area (ha) | Total Annual catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species | Remarks            |
|---------------------|-----|-----------------------|-------------------------|----------------------|------------------------|--------------------|
| River               | 01  | 350                   | 24.5                    | 70                   | As stated above.       | Production is poor |

Source: MES field Survey dated March 1997.

### Inshore / Offshore :

Both Inshore and Offshore fishery is absent.

### Fisheries:

No GOB office has been posted to Char Biswas.

## 8. Char Yunus

### Ponds

Presence of very few ponds, numbering of about 20 covering an estimated total area of 2.50 ha and annual fish production of 2 Mt. @ 800 Kg/ha/yr. The cultured fish species includes: Rui, Catla, Mrigal, Silver Carp, Grass Carp etc. The fish production data (1996-97) of ponds under Char Yunus is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                       | Remarks                            |
|---------------------|-----|-----------------------|------------------|----------------------|--|------------------------------------|
| Pond                | 20  | 2.50                  | 2                | 800                  | Indian Major carp + Exotic carp fish Species | Culture fishery is extremely poor. |

Source: MES field Survey dated March, 1997

### Khals / Flood land:

There are 8-10 Khals out of which one is very big khal. The big khal is a perennial khal covering an estimated area of 200 ha. The total khal area is about 250 ha. and total fish production is about 10 Mt. @ 40 Kg/ha/yr. The harvested fish from the Khal includes: Chewa, Poa, Guilla, Ayre etc.

The fish production data (1996-97) of the available Khals is furnished below in the form of table.

| Sector of Fisheries | No. | Total water area (ha) | Total Annual catch (Mt) | Catch/Area Kg/ha/yr. | Available fish species        | Remarks            |
|---------------------|-----|-----------------------|-------------------------|----------------------|-------------------------------|--------------------|
| Khals               | 10  | 250                   | 10                      | 40                   | Chewa, Poa, Guilla, Ayre etc. | Production is poor |

Source: MES field Survey dated March 1997

### Floodplain:

Floodplain fishery is absent.

### River:

There is a one big river - known as "Tentulia River" covering an estimated area of 2.50 sq. Km (250 ha) and total annual fish production of 25 Mt @ 100 Kg/ha/yr. The harvested fish from the river includes: Chewa, Poa, Ilish, Ayre, Bata etc.

The fish production data (1996-97) of river under Char Yunus is furnished below in the form of table.

| Sector of Fisheries | No. | Total water area (ha) | Total Annual catch (Mt) | Catch/Area Kg/ha/yr. | Available fish species      | Remarks              |
|---------------------|-----|-----------------------|-------------------------|----------------------|-----------------------------|----------------------|
| River               | 1   | 250                   | 25                      | 100                  | Chewa, Poa, Bata, Ayre etc. | Potential water body |

Source: MES field Survey dated March 1997

Inshore / Offshore : Both Inshore and Offshore fishery is absent.

## 83. Fisheries:

No GOB office has been posted to Char Yunus.

## B1. Hatia

### 10. Nijhum Dwip

#### Ponds

There are 20 number of ponds covering an estimated area of 15 ha with an average ponds size of 0.75 ha each. Culture fisheries activities are practical in these ponds by local people but not scientifically (important aquaculture technology). The available ponds are said to be community pond being shared by the household. The per ha per year fish production from these ponds is 1067 Kg which is too low as compared to well managed pond. There are many constraints for the low fish production level of these ponds. The fish production data from these pond is furnished below in the form of table: (1996-97).

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Species cultured   | Remarks   |
|---------------------|-----|-----------------|------------------|----------------------|--|---|
| Pond                | 20  | 15              | 16               | 1667 Kg.             | Indian Major carp like Rui, Catla. Mrigel and exotic carp like Grass carp. Silver carp | Community pond and is under traditional culture technology 09%. |

Source: MES field Survey dated 10.03.1997 - 15.03.1997

#### Khals / flood land

There are about 4 Khals and few small creeks criss-crossed the Nijhum Dwip are. All the available Khals are under tidal influence and open on either ends. The said Khals covering an estimated area of 25 ha fish production level is at the rate of 120 Kg/ha/yr. The Khals are potential khash water bodies in the area.

The fish production data (1996-97) of the available Khals is furnished below in the form of table.

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Available fish species   | Remarks                         |
|---------------------|-----|-----------------|------------------|----------------------|--------------------------|---------------------------------|
| Khal                | 04  | 25              | 03               | 120                  | Shrimp, Corkers, Catfish | Khals are under tidal influence |

Source: MES field Survey dated 10.03.1997 - 15.03.1997

#### Floodplain

Reportedly there are about 810 ha area of flood land and estimated total fish production is 250 Mt. at the rate of 301 Kg/ha/yr. The fish production data (1996/97) Nijhum Dwip floodplain is furnished below in the form to table:



| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species  | Remarks                               |
|---------------------|-----|-----------------|------------------|----------------------|---|---------------------------------------|
| Flood plain         | 0   | 810             | 250              | 308                  | Carp fish Gt. fish snake low fish and masc. other small fish. | Seasonally inundated area<br>** 1.367 |

Source: MES field Survey dated 10.03.1997 - 18.03.1997

#### River:

River fishery around Nijhum Dwip area has been considered under two categories, viz., inshore and offshore. The fish production data of inshore area (within 5 Km. of land) (1996-97) is furnished. below in the form of table;

#### **Inshore fishery**

| Sector of Fisheries | No. | Water area (ha)             | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                  | Remarks                                      |
|---------------------|-----|-----------------------------|------------------|----------------------|---|--|
| Inshore (Marine)    |     | Within 5 Km. from sea shore | 8125             | -                    | Shrimp, crab, cat fish, shad, croackers | 437 ha<br>Financial constrains for fisherman |

Source: MES field Survey dated 10.03.1997 - 15.03.1997

#### **Offshore fishery (Beyond 5 Km)**

The fish production data of offshore area (beyond 5 Km) is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                                  | Remarks   |
|---------------------|-----|-----------------|------------------|----------------------|---|---|
| Offshore (Marine)   | -   | Beyond 5 Km.    | 10,125           | -                    | Shrimp, crab, cat fish, shad, Shell fish, pomfrets etc. | 55% catch<br>Financial constrains for fisherman |

Source: MES field Survey dated 10.03.1997 - 15.03.1997



## B1. Hatia

### 11. Char Macperson (South Hatia)

#### Ponds:

There are 500 ponds covering an estimated area of 283 ha with total fish production of 226 Mt. and fish production rate is 799 Kg/ha/yr. The fish production data of pond (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species | Remarks               |
|---------------------|-----|-----------------|------------------|----------------------|------------------------|-----------------------|
| Ponds               | 500 | 283             | 226              | 799                  | Indian major carp      | Poor 7% of the catch. |

Source: MES field Survey dated 10.03.1997 - 15.03.1997

#### Khals:

There are 5 Khals covering an estimated total area of 2 ha with total fish production of 1 ton/yr. @500 Kg/ha/yr. The fish production data of Khals (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                             | Remarks                            |
|---------------------|-----|-----------------|------------------|----------------------|--|------------------------------------|
| Khals               | 5   | 2               | 1                | 500                  | Taposhi, Tengra, Guila, Chewa, Poa, Shrimp & Misc. | Under tide of influence 15% catch. |

Source: MES field Survey dated 10.03.1997 - 15.03.1997

#### Rivers:

Inshore: (Within 5 Km) (1996-97)

| Sector of Fisheries | No. | Water area (ha)             | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                      | Remarks                  |
|---------------------|-----|-----------------------------|------------------|----------------------|---|--------------------------|
| Inshore             | -   | Within 5 Km. from sea shore | 2000             | -                    | Chewa, Loita, Toposhi, shrimp, Pangus, etc. | Poor fishermen 61% catch |

Source: MES field Survey dated 10.03.1997 - 15.03.1997

Offshore fisheries (Beyond 5 Km) (1996-97)

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                                 | Remarks                            |
|---------------------|-----|-----------------|------------------|----------------------|--|------------------------------------|
| Offshore            | -   | Beyond 5 Km     | 1000             | -                    | Shed, Coral, Bhetki, Shrimp, croakers, Muller Pomfresh | Fishermen commonly poor 30% catch. |

Source: MES field Survey dated 10.03.1997 - 15.03.1997

## B2. MANPURA



### 13. Manpura:

#### Ponds:

There are about 1147 no. of ponds covering an estimated area of 402 ha and total annual fish production level is at the rate of 910 Kg/ha/yr. The harvested fish includes: Carp (Indian), and Exotic Carp. The pond fish production data of Manpura (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No.  | Total Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Species cultured                | Remarks                  |
|---------------------|------|-----------------------|------------------|----------------------|---------------------------------|--------------------------|
| Pond                | 1147 | 402                   | 365              | 908                  | Indian Major carp + Exotic carp | Fish production is poor. |

Source: MES field Survey dated May 1997

#### Khals / Flood land:

There are 10 Khals (perennial/seasonal) covering an estimated total area of 56 ha with fish production level at the rate of 136 Kg/ha/yr. The Khals harvested in the Khals include: Shing, Magur, Boal, Koi, Puti, Bhetki, Poa, Taki, Tengra, Baim, Hacha, Sarputi, Icha, and many small miscellaneous fish.

The fish production data (1996-97) of the available Khals is furnished below in the form of table.

| Sector of Fisheries | No. | Total water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Available fish species                          | Remarks                |
|---------------------|-----|-----------------------|------------------|----------------------|---|------------------------|
| Khals               | 02  | 56                    | 7                | 125                  | Shing, Magur, Boal, Koi, Puti, Bhetki, Poa etc. | Potential water bodies |

Source: MES field Survey dated May 1997

#### Floodplain:

Floodplain fishery is nil.

#### River:

River fishery is reported to be absent.

### Inshore Fishery (within 5 Km from sea coast):

Reportedly about 12121 Mt. of fish are harvested annual from inshore area of Manpura. The harvested fish includes: Chawa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn. the fish production data of inshore are under Char Montaz (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha)             | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                                      | Remarks               |
|---------------------|-----|-----------------------------|------------------|----------------------|---|-----------------------|
| Inshore (Marine)    | -   | Within 5 Km. from sea shore | 12121            | -                    | Chawa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn | Potential water body. |

Source: MES field Survey dated May 1997

### Offshore fishery (Beyond 5 Km)

No available data in offshore fishery:

### Fisheries:

Further information to this regard has been shown in the MES project Base Map, Under T.F.O Manpura.

## C1. SOUTH NOAKHALI

## 17. Char Buoya

Ponds

There is no pond in Char Buoya.

Khals / Flood land

Floodplain and Khals are absent. Only a number of insignificant creeks are present. Floodplain is also absent.

River:

There is one river covering an estimated area of 200 ha and total fish production of 24 Mt. The per ha/yr fish production is 120 Kg. The harvested fish includes: Chewa, Poa, Shrimp, Shrimp fry, Prawn, Bailla, Icha etc. The fish production data (1996-97) of river under Char Buoya is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                      | Remarks                         |
|---------------------|-----|-----------------|------------------|----------------------|---|---------------------------------|
| River               | 01  | 200             | 24               | 120                  | Chawa, Poa, Sea Ilish, Pangash, Shrimp etc. | Potential fisheries water body. |

Source: MES field Survey dated March 1997

**Inshore Fishery (within 5 Km from sea coast):**

Inshore fishery is absent

**Offshore fishery (Beyond 5 Km)**

Offshore fishery is also absent.

Fisheries:

There is no GOB fisheries office in Char Buoya. Further information to this regard has been shown in the MES project Base Map under T.F.O Hatia Thana.



## C2. SANDWIP

### 19. Sandwip

#### Ponds

There are about 2000 no. of ponds covering an estimated area of 1150 ha and total annual fish production is recorded to be 1287 Mt. The pond fish production level is at the rate of 1119 Kg/ha/yr. The harvested fish includes: Carp (Indian), and Exotic Carp. The pond fish production data of Manpura (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No.  | Total Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Species cultured                | Remarks                        |
|---------------------|------|-----------------------|------------------|----------------------|---------------------------------|--------------------------------|
| Pond                | 2000 | 1150                  | 1287             | 1119                 | Indian Major carp + Exotic carp | Production needs to be raised. |

Source: MES field Survey dated March 1997

#### Khals / Flood land:

Reportedly Khal fishery is absent.

#### Floodplain:

Floodplain fishery is also absent.

#### River:

River fishery is also absent.

#### Inshore Fishery (within 5 Km from sea coast):

Reportedly about 1871 Mt. of fish are harvested annually from inshore area of Sandwip. The harvested fish includes: Chawa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn. the fish production data of inshore are under Sandwip (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha)             | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                                      | Remarks                 |
|---------------------|-----|-----------------------------|------------------|----------------------|---|-------------------------|
| Inshore (Marine)    | -   | Within 5 Km. from sea shore | 1871             | -                    | Chawa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn | Potential fishery area. |

Source: MES field Survey dated March 1997

### Offshore fishery (Beyond 5 Km)

About 1013 Mt. of fish are annually harvested from offshore fishery area of Sandwip area. The harvested fish includes: Hilsha, Bata, Loitta, Shrimp etc. The fish production data (1996-97) of offshore area under Sandwip Thana is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species | Remarks |
|---------------------|-----|-----------------|------------------|----------------------|------------------------|---------|
| Offshore area       | -   | Beyond 5 Km.    | 1013             | -                    | Ilish, Shrimp etc.     | -       |

Source: MES field Survey dated March 1997

### Fisheries:

Further information to this regard has been show in the MES project Base Map, Under T.F.O Sandwip.

### C3. NORTH SANDWIP

#### 20. Urir Char (Old name is Char Pirkaksh)

##### Ponds

There are about 1000 no. of ponds covering an estimated area of 81 ha and total annual fish production is recorded to be 40 Mt. The pond fish production level is at the rate of 500 Kg/ha/yr. The harvested fish includes: Carp (Indian), and Exotic Carp. The pond fish production data of North Sandwip (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No.  | Total Water area (ha) | Total catch (Mt.) | Catch/Area Kg/ha/yr. | Species cultured                | Remarks  |
|---------------------|------|-----------------------|-------------------|----------------------|---------------------------------|--|
| Pond                | 1000 | 81                    | 40                | 500                  | Indian Major carp + Exotic carp | Production water bodies but saline water intrusion is a great problem. |

Source: MES field Survey dated January 1997

##### Khals / Flood land

There is one big Khal locally Known as "Luda" having an estimated area of 2 Sq. Km. Besides there are small seasonal Khal which are not of much significance. The fish harvested from the Khal includes: Bata, Guilla, Tengra, Icha (Shrimp). The saie big khal having an estimated are of 200 ha and annual total annual fish, production of 8 Mt. The fish production data (1996-97) of Khal under "Urir char" is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Species cultured                     | Remarks                  |
|---------------------|-----|-----------------------|------------------|----------------------|--------------------------------------|--------------------------|
| Khal                | 01  | 200                   | 08               | 40                   | Bata, Guilla, Tengra, Icha, Poa etc. | Fish production is poor. |

Source: MES field Survey dated January 1997

##### Floodplain:

Floodplain fishery is absent.

##### River:

River fishery is also absent.



**Inshore Fishery (within 5 Km from sea coast):**

Reportedly about 6000 Mt. of fish are harvested annually from inshore area of Urir Char. The harvested fish includes: Chawa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn. The fish production data of inshore are under Urir Char (1996-97) is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha)             | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species                                      | Remarks                 |
|---------------------|-----|-----------------------------|------------------|----------------------|---|-------------------------|
| Inshore (Marine)    | -   | Within 5 Km. from sea shore | 6000             | -                    | Chawa, Poa, Sea cat fish, Ilish, Pangash, Shrimp, and Prawn | Potential fishery area. |

Source: MES field Survey dated January 1997

**Offshore fishery (Beyond 5 Km)**

About 10,000 Mt. of fish are annually harvested from offshore fishery area of Urir Char area. The harvested fish includes: Hilsha, Bata, Loitta, Shrimp etc. The fish production data (1996-97) of offshore area under Urir Char is furnished below in the form of table:

| Sector of Fisheries | No. | Water area (ha) | Total catch (Mt) | Catch/Area Kg/ha/yr. | Harvested fish Species | Remarks                |
|---------------------|-----|-----------------|------------------|----------------------|------------------------|------------------------|
| Offshore area       | -   | Beyond 5 Km.    | 10,000           | -                    | Ilish, Shrimp etc.     | Potential fish habited |

Source: MES field Survey dated January 1997

**Fisheries:**

No fisheries office (GOB) is available in Urir Char area. further information to this regard has been shown in the MES project Base map under T.F.O of Chittagong Sadar Thana.

## C4. FENI RIVER

### 22. MUHURI ACCRETION

#### Ponds

Reportedly there are 90 no. of ponds covering an estimated area of 4 ha and fish production 1400 kg/ha/yr. The fish species cultured in the pond includes: Major Carps (Indian), and Exotic Carp. About there are 4 shrimp culture projects covering an estimated area of 4 ha. Besides 567 ha of land area demarcated for shrimp culture. The pond fish production data of Muhuri Accretion (April, 1996) is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total Annual catch (Mt) | Catch/Area Kg/ha/yr. | Species cultured                | Remarks                                |
|---------------------|-----|-----------------------|-------------------------|----------------------|---------------------------------|--|
| Pond                | 90  | 4                     | 6                       | 1400                 | Indian Major carp + Exotic carp | Potential for aquaculture developments |

*Source: Muhuri Accreted Area, Pre-feasibility Study, April, 96*

#### Khals / Flood land:

There are 4 khals covering an estimated area of 154 km. Besides there are 3 Jalmahals covering an estimated area of 3784 ha.

*Source: Muhuri Accreted Area, Pre-feasibility Study, April, 96*

#### River:

There are 2 rivers covering an estimated area of 3384 ha.

*Source: Muhuri Accreted Area, Pre-feasibility Study, April, 96*

#### Inshore / Offshore :

No data available for inshore and offshore fisheries.

#### Fisheries:

No GOB office has been posted to Muhuri Accretion Area.

## C4. Feni River

## 23. Little Feni Accretion

Ponds

Approximately there are 250 ponds covering an estimated area of 15 ha and total annual fish production of 21 Mt. at the rate of 1400 Kg/ha/yr. The cultured fish species includes: Major Carp (Indian), and Exotic Carp. The pond fish production data (1996, April) of "Little Feni Accretion" is furnished below in the form of table:

| Sector of Fisheries | No. | Total Water area (ha) | Total Annual catch (Mt.) | Catch/Area Kg/ha/yr. | Species cultured                | Remarks   |
|---------------------|-----|-----------------------|--------------------------|----------------------|---------------------------------|---|
| Pond                | 250 | 15                    | 21                       | 1400                 | Indian Major carp + Exotic carp | Potential water body for aquaculture development. |

*Source: Muhuri Accreted Area, Pre-feasibility Study Vol.-3 Annexes, April '96.*

Khals / Flood land / River / Inshore / Offshore:

There was no available data with regard to capture fisheries production in Little Feni Accreted Area.

Fisheries:

No fisheries office (GOB) is available in Little Feni Accreted Area.





### **Identification of Constraints:**

- Poor aquaculture production.
- Absence of fisheries extension activities.
- Inadequate knowledge of improved fish culture technology.
- Lack of shrimp culture facilities.
- Acute scarcity of fishing gear and craft.
- Lack of proper fish landing, fish processing and transportation facility.
- Marketing problems.
- Lack of appropriate fisheries data.
- No. NGO activities.
- Lack of GOB fisheries office facility.

### **Conclusion and Recommendations:**

The water bodies statistics with their number, area, total annual fish production, per ha /yr fish production has been described shortly in the previous chapters under individual chars. The total water bodies and fish production statistics of different chars under MES area has been shown in Appendix-A. In the project area about 6027 number of ponds covering an estimated total area of 2985 ha and annual fish production of 2987 metric tons @ 935 Kg/ha/yr. There are 94 khals covering an estimated area of 2683 ha and total annual fish production of 211 metric ton @ 79 Kg/ha/yr. There are 12 rivers covering an estimated area of 9384 ha and total annual fish production of 599.5 Mt. @ 53 Kg/ha/yr.

A total of 77403 metric tons of sea fish are annually harvested from different inshore area (within 5 Km from sea cost) of the project. Also an estimated 78138 Mt. of sea fish are annually harvested from offshore area of the project. The list of the available fish fauna under the project area has been listed in Appendix "A".

### **Recommendations:**

The following suggestions are recommended to boost up the fisheries situation within the project area:

- Inland fisheries (culture/ capture) needs to be attended for boosting up fish production. This could be mitigated through introduction of fisheries extension activities (like training and credit facility).
- Local professional fishermen needs to be trained so that fisheries system could be well managed and over fishing could be avoided.
- All the available derelicts and culturable ponds should be brought under culture fishery programme to enhance ponds fish production.

- ° Inland open water (Capture fishery) fishery could be developed by introducing supplementary stocking of water bodies.
- ° In order to facilitate culture fishery in the areas, hatchery need to be constructed to make available of fish fry.
- ° Fish processing, fish storing, fish marketing and fish transportation facilities need to be provided.
- ° Fish stock assessment survey of water bodies need to be conducted to maintain maximum sustainable yield.
- ° Credit facility through Banks need to be provided to enable the fishermen to purchase necessary fishing inputs.

## Appendix - A

Listing of Fish Species in MES Project Area

## A. Inland Fresh Water Fish Fauna

| Sl. No. | Bengali Name  | English Name | Scientific Name                   | Remarks |         |
|---------|---------------|--------------|-----------------------------------|---------|---------|
|         |               |              |                                   | Status  | Habifat |
| 1       | Air           | Cat fish     | <i>Mystus</i>                     | F       | R.C     |
| 2       | Bacha         | -            | <i>Eutropiichthys vacha</i>       | C       | R       |
| 3       | Baim          | Spiny eel    | <i>Mastaambelus armetus</i>       | C       | ALL     |
| 4       | Bata          | Mullet       | <i>Labeo bata</i>                 | C       | R       |
| 5       | Batashi       | -            | <i>Pseuttarpilus atheronoides</i> | C       | ALL     |
| 6       | Bele          | -            | <i>Glossoobius giuris</i>         | C       | RCCR    |
| 7       | Bheda         | -            | <i>Nandus nandus</i>              | R       | P       |
| 8       | Boal          | Cat fish     | <i>Wallago attu</i>               | F       | ALL     |
| 9       | Chanda        | -            | <i>Chanda nama</i>                | C       | ALL     |
| 10      | Chapila       | Herring      | <i>Gudusia Chapra</i>             | C       | ALL     |
| 11      | Chela         | -            | <i>Oxygaster bacaila</i>          | C       | ALL     |
| 12      | Chital        | Predator     | <i>Notopterus chital</i>          | R       | RCP     |
| 13      | Chingree icha | Prawn        | <i>Caridina gracilirostris</i>    | F       | ALL     |
| 14      | Foli          | Predator     | <i>Notopterus notoporus</i>       | C       | RCP     |
| 15      | Ghaura        | -            | <i>Clupisoma garua</i>            | C       | R       |
| 16      | Ghonia        | -            | <i>Labio gonius</i>               | R       | RP      |
| 17      | Galda Chnigri | Prawn        | <i>Macrobrachium rosenbergii</i>  | F       | ALL     |
| 18      | Golsha        | Cat fish     | <i>Mystus bleekeri</i>            | C       | R       |
| 19      | Gazar         | Snake nead   | <i>Chana marulius</i>             | R       | P       |
| 20      | Ilish         | Herring      | <i>Hilsha ilisha</i>              | F       | R       |
| 21      | Kajoli        | Kajoli       | <i>Ailia coilia</i>               | R       | ALL     |
| 22      | kalibaush     | Carp         | <i>Labeo calbashu</i>             | R       | RP      |
| 23      | Kanchki       | Anchorites   | <i>Corica saborna</i>             | C       | R       |
| 24      | Kani pabda    | -            | <i>Ompok bimaculatus</i>          | C       | RC      |
| 25      | Katla         | Carp         | <i>Catla catla</i>                | C       | RP      |
| 26      | Koi           | Perch        | <i>Anabus testudineus</i>         | C       | P C C R |
| 27      | Magur         | Cat fish     | <i>Clarius batracus</i>           | C       | C C R P |
| 28      | Mola          | Small fish   | <i>Amblypharyn goden mola</i>     | C       | ALL     |
| 29      | Mrigal        | Carp fish    | <i>Cirrhinus mrigla</i>           | C       | RC      |
| 30      | Pabda         | -            | <i>Ompok pabda</i>                | C       | RC      |
| 31      | Pangas        | Cat fish     | <i>Pangasius pangasius</i>        | F       | RC      |
| 32      | Poa           | Creakier     | <i>Pama Pama</i>                  | C       | R       |
| 33      | Punti         | Barbs        | <i>Puntus Puntio</i>              | C       | ALL     |
| 34      | Rayeg         | Carp         | <i>Cirrninus reba</i>             | R       | RP      |
| 35      | Rita          | Cat fish     | <i>Rita rita</i>                  | R       | R       |
| 36      | Shada Chewa   | -            | <i>Tryauchen vagina</i>           | F       | R       |
| 37      | Shilong       | Cat fish     | <i>Silomia silomia</i>            | C       | R       |
| 38      | Shing         | Cat fish     | <i>Hetero pneustus fossilis</i>   | C       | CCRP    |
| 39      | Shol          | Snake head   | <i>Channa striatus</i>            | R       | P       |
| 40      | Taki          | Snake head   | <i>Chana Punctatus</i>            | R       | PCR     |
| 41      | Tengra        | Cat fish     | <i>Batasio tengra</i>             | C       | ALL     |
| 42      | Topshi        | Paradise     | <i>Polynenus sexfilig</i>         | R       | R       |

Source: MES field survey dated: March - May , 1997



**B. Inshore Fish Fauna (within 5 km. of land):**

| Sl. No. | Bengali name      | English name       | Scientific name                  | Remarks |         |
|---------|-------------------|--------------------|----------------------------------|---------|---------|
|         |                   |                    |                                  | Status  | Habitat |
| 1.      | Bagda Chingri     | Shrimp             | <i>Penaeus monodon</i>           | C       | IS      |
| 2.      | Bagatara Chingri  | Shrimp             | <i>Penaeus semisulcatus</i>      | F       | IS      |
| 3.      | Dorakata Chingri  | Shrimp             | <i>Penaeus japonicus</i>         | F       | IS      |
| 4.      | Golda Chingri     | Prawn              | <i>Macrobrachium rosenbergi</i>  | F       | IS      |
| 5.      | Gura Icha         | Shrimp             | <i>Nematopalaemon tenuipes</i>   | F       | IS      |
| 6.      | Sila / Gool kakra | Mud crab           | <i>Scylla serrata</i>            | C       | IS      |
| 7.      | Zazi kakra        | Blue swimmer crab  | <i>Neptune pelagicus</i>         | C       | IS      |
| 8.      | Kata mach         | Cat fish           | <i>Arius s.p</i>                 | C       | IS      |
| 9.      | Bhetki/koral mach | Giant sea perch    | <i>Lates calcarifer</i>          | F       | IS      |
| 10.     | Pangas            | Fatty cat fish     | <i>Pangasius pangasius</i>       | R       | IS      |
| 11.     | Tapsi             | Paradisethread fin | <i>Polynemus paradiscus</i>      | C       | IS      |
| 12.     | Poa               | Croaker            | <i>Otolithes cuvieri</i>         | C       | IS      |
| 13.     | Phase             | Moustached thrysa  | <i>Thrysa mystax</i>             | F       | IS      |
| 14.     | Hilsha            | Hilsha shad        | <i>Hilsha ilisha</i>             | C       | IS      |
| 15.     | Lal chewa         |                    | <i>Odontamblyopus rubicundus</i> | C       | IS      |
| 16.     | Shada chewa       |                    | <i>Tryanthen vagina</i>          | C       | IS      |
| 17.     | Laita             | Bombay duck        | <i>Herpodon nehereus</i>         | F       | IS      |

**Codes :**

**Habitat:** R= River, C= Canal, P= Pond, F= Flood plain, IS = Inshore

**Status :** C= Common, R= Rare, F= Fairly Common.

**C. Offshore Fish Fauna (Beyond 5 km. from shore).**

| Sl. No. | Bengali name        | English name   | Scientific name                 | Remarks |         |
|---------|---------------------|----------------|---------------------------------|---------|---------|
|         |                     |                |                                 | Status  | Habitat |
| 1.      | Bagda Chingri       | Shrimp         | <i>Penaeus monodon</i>          | C       | OS      |
| 2.      | Bagatara Chingri    | Shrimp         | <i>Penaeus semisulcatus</i>     | C       | OS      |
| 3.      | Dora kata Chingri   | Shrimp         | <i>Penaeus japonicus</i>        | C       | OS      |
| 4.      | Baga champa Chingri | Shrimp         | <i>Penaeus merguensis</i>       | C       | OS      |
| 5.      | Chaga Chingri       | Shrimp         | <i>Penaeus indicus</i>          | C       | OS      |
| 6.      | Horine Chingri      | Shrimp         | <i>Metapenaeus monoceros</i>    | C       | OS      |
| 7.      | Ruda Chingri        | Shrimp         | <i>Parapenaeopsis scuptilis</i> | C       | OS      |
| 8.      | Ghhoa Icha          | Lobster        | <i>Panulirus polyphagus</i>     | F       | OS      |
| 9.      | Nune Cheai          | Cuttle fish    | <i>Sepia s.p</i>                | F       | OS      |
| 10.     | Nuilla              | Squid          | <i>Loligo s.p</i>               | F       | OS      |
| 11.     | Octopus             | Common octopus | <i>Octopus vulgaris</i>         | C       | OS      |
| 12.     | Kata mach           | Cat fish       | <i>Arius s.p</i>                | F       | OS      |

| Sl. No. | Bengali name         | English name             | Scientific name                    | Remarks |         |
|---------|----------------------|--------------------------|------------------------------------|---------|---------|
|         |                      |                          |                                    | Status  | Habitat |
| 13.     | Nunatengra/Guilla    | Bagrid catfish           | <i>Mystus gulio</i>                | F       | OS      |
| 14.     | Bhetki/Koral mach    | Giant sea perch          | <i>Lates calcarifer</i>            | F       | OS      |
| 15.     | Kukurjib             | Long tongue sole         | <i>Cynoglossus lingua</i>          | C       | OS      |
| 16.     | Pann mach            | Sickle fish              | <i>Derepane longimanna</i>         | C       | OS      |
| 17.     | Hatir kann           | Spade fish               | <i>Ephippus orbis</i>              | C       | OS      |
| 18.     | Dom mach             | Silver- biddies          | <i>Gerres filamentosus</i>         | F       | OS      |
| 19.     | Jagri                | Silver- biddies          | <i>Pentaprion longmanus</i>        | F       | OS      |
| 20.     | Loittya mach         | Bombay duck              | <i>Harpodon nehereus</i>           | C       | OS      |
| 21.     | Sadha mach           | Falsh trevally           | <i>Lactarius lactarius</i>         | C       | OS      |
| 22.     | Ranga choukya        | Red snapper              | <i>Lutjanus johnei</i>             | F       | OS      |
| 23.     | Taka chanda          | Shortnose pouy fish      | <i>Leiognathus brevirostris</i>    | C       | OS      |
| 24.     | Chan chanda          | Moon fish                | <i>Mene maculata</i>               | C       | OS      |
| 25.     | Sonali bata          | Goat fish                | <i>Upeneus sulphurens</i>          | F       | OS      |
| 26.     | Khorul               | Mullet                   | <i>Liga subviridis</i>             | F       | OS      |
| 27.     | Rupban               | Bream                    | <i>Nemipterus japonicus</i>        | F       | OS      |
| 28.     | Pangas               | Fatty cat fish           | <i>Pangasius pangasius</i>         | R       | OS      |
| 29.     | Sada datine          | Lined silver grunter     | <i>Pomadasys hasta</i>             | F       | OS      |
| 30.     | Lakhua               | Indian salmon            | <i>Polynemus indicus</i>           | C       | OS      |
| 31.     | Thailla              | Four finger threod fin   | <i>Eleutheronema terradoctylum</i> | C       | OS      |
| 32.     | Murbailla            | Flat head fish           | <i>Platycephalus indicus</i>       | F       | OS      |
| 33.     | Pari machh           | Purple spotted (big eye) | <i>Pariacanthus tayenus</i>        | R       | OS      |
| 34.     | Samudra serboti      | Indian halibut           | <i>Psettodes erumei</i>            | R       | OS      |
| 35.     | Achila/Tiktiki machh | Greater lizard fish      | <i>Saurida tumbil</i>              | F       | OS      |
| 36.     | Hundra machh         | Laddy fish               | <i>Sillago domina</i>              | F       | OS      |
| 37.     | Goti poa             | Croaker                  | <i>Otolithes macuptus</i>          | F       | OS      |
| 38.     | Poa                  | Croaker                  | <i>Otolithes cuvieri</i>           | C       | OS      |
| 39.     | Kala poa             | Spotted croaker          | <i>Protonibea diacanthis</i>       | C       | OS      |
| 40.     | Lal poa              | Silver pennah croaker    | <i>Johnius argentatus</i>          | C       | OS      |
| 41.     | Lal datina           | Longspine sea bream      | <i>Argyrops spinifer</i>           | C       | OS      |
| 42.     | Darkuta              | Forsteis barrawda        | <i>Sphyræna forsteri</i>           | C       | OS      |
| 43.     | Rupchanda            | Chinese pomfret          | <i>Pampus chinensis</i>            | C       | OS      |
| 44.     | Folichanda           | Silver pomfret           | <i>Pampus argentens</i>            | C       | OS      |
| 45.     | Chhuri machh         | Ribbon fish              | <i>Lepturacanthus sevala</i>       | F       | OS      |
| 46.     | Berguni              | Therapon perch           | <i>Therapon jarbua</i>             | F       | OS      |
| 47.     | Teilla phasa         | Harifin anchory          | <i>Setipinnae taty</i>             | F       | OS      |
| 48.     | Phasa                | Moustached thryssa       | <i>Thryssa mystax</i>              | F       | OS      |
| 49.     | Olua                 | Pointed tail anchovy     | <i>Collia dussumieri</i>           | R       | OS      |
| 50.     | Hichiri machh        | White sardine            | <i>Escualosa thoracata</i>         | F       | OS      |



| Sl. No. | Bengali name  | English name        | Scientific name                | Remarks |         |
|---------|---------------|---------------------|--------------------------------|---------|---------|
|         |               |                     |                                | Status  | Habitat |
| 51.     | Ilish/Hilsha  | Hilsha shad         | <i>Hilsha ilisha</i>           | C       | OS      |
| 52.     | Hail chanda   | Black pomfret       | <i>Parastromateus niger</i>    | C       | OS      |
| 53.     | Moori         | Djeddaba crevalle   | <i>Alepes djeddaba</i>         | C       | OS      |
| 54.     | Bom maittya   | Eastern little tuna | <i>Euthymus affinis</i>        | C       | OS      |
| 55.     | Surma machh   | Mackerel            | <i>Scomberomorus commerson</i> | C       | OS      |
| 56.     | Champa        | Indian mackeral     | <i>Rastrelliger kanagurta</i>  | C       | OS      |
| 57.     | Kamat/Hangar  | Milk shark          | <i>Scoliodon walbeehmii</i>    | C       | OS      |
| 58.     | Haush/Sankush | Sting ray           | <i>Himanture uarnak</i>        | C       | OS      |
| 59.     | Pitabri       | Skate               | <i>Rhynchobatus djeddensis</i> | F       | OS      |
| 60.     | Haturi Hanger | Hammer-headed shark | <i>Sphyma blochii</i>          | F       | OS      |

**Codes :**

**Habitat** : Offshore = OS

**Status** : C = Common, R = rare, F = Fairly common



Table: Statistics of Water Bodies and Fish Production of Different Char Under MES Project (1996-97)

| Parameter   | Char<br>Bara<br>Baishdia | Char<br>Ranabali | Char<br>Montaz | Chr<br>Kurkri<br>Mukri | Char<br>Biswas | Char<br>Yunus | Manpura | Char<br>Buoya | Sandwip | Unir<br>Char | Nijhum<br>Dwip | South<br>Hatia | Feni<br>River | Little Feni<br>Accretion | Total | Productin<br>Rate<br>Kg/ha/yr |
|---|--------------------------|------------------|----------------|------------------------|----------------|---------------|---------|---------------|---------|--------------|----------------|----------------|---------------|--------------------------|-------|-------------------------------|
| Pond No.  | 1                        | 2                | 3              | 4                      | 5              | 6             | 7       | 8             | 9       | 10           | 11             | 12             | 13            | 14                       | 15    | 16                            |
| Area (ha)   | 200                      | 700              | 50             | -                      | 50             | 20            | 1147    | -             | 2000    | 1000         | 20             | 500            | 90            | 250                      | 6027  | 928                           |
| Production (Mt.)  | 20                       | 150              | 810            | -                      | 5              | 2.50          | 402     | -             | 1150    | 81           | 15             | 150            | 4             | 15                       | 2804  | -                             |
|   | 14                       | 80               | 648            | -                      | 04             | 02            | 365     | -             | 1287    | 40           | 16             | 120            | 6             | 21                       | 2603  | -                             |
| Khal No.  | 50                       | 01               | 10             | -                      | 06             | 10            | 02      | -             | -       | 01           | 06             | 4              | 4             | -                        | 94    | 79                            |
| Area (ha)   | 1000                     | 300              | 150            | -                      | 200            | 250           | 56      | -             | -       | 200          | 25             | 2              | 500           | -                        | 2683  | -                             |
| Production (Mt.)  | 40                       | 12               | 06             | -                      | 09             | 10            | 7       | -             | -       | 08           | 3              | 1              | 15            | -                        | 211   | -                             |
| River No.   | 3                        | 02               | 02             | -                      | 02             | 01            | -       | 01            | -       | -            | -              | -              | 2             | -                        | 12    | 53                            |
| Area (ha)   | 3000                     | 1000             | 1200           | -                      | 350            | 250           | -       | 200           | -       | -            | -              | -              | 3384          | -                        | 9384  | -                             |
| Production (Mt.)  | 150                      | 80               | 96             | -                      | 24.50          | 25            | -       | 24            | -       | -            | -              | -              | 100           | -                        | 499.5 | -                             |
| Inshore (within<br>5 Km from sea<br>cost) production<br>Mt. | 11000                    | 13500            | 8786           | -                      | -              | -             | 12121   | -             | 1871    | 6000         | 8125           | 4000           | -             | -                        | 77403 | -                             |
| Offshore<br>Beyond 5 Km<br>production Mt.                   | 15000                    | 15000            | 10,000         | -                      | -              | -             | -       | -             | 1013    | 10000        | 10125          | 2000           | -             | -                        | 78138 | -                             |

Source: MES Field Survey dated January - April, 1997

# Appendix C: MES Project Area Map

