

ANNEX 2

WATER QUALITY FIELD SURVEY LOG SHEETS

- 1. GAIBANDHA SURVEY SITES**
- 2. REGIONAL SURVEY SITES**

1. Gaibandha Surveys

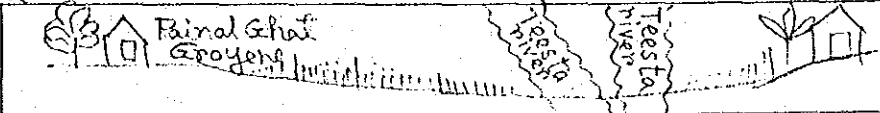
TRANSECT DATA SHEET - SURFACE WATER

| | | | | | |
|--|--|---|------|--------------------------|-----|
| Date/Time : 27.2.92 / 2-30 PM | Location: | | | | |
| Sample Source : Harudanga Beel | Vill. - Kala | | | | |
| Sample Code : G1 | U.P. - Annada Nagar | | | | |
| Sampling Point : North - Central | U.Z. - Pingacha | | | | |
| Transect No. : 1 | Dist. - Rangpur | | | | |
| Sketch | | | | | |
| Main features/ General description of the water body | Closed water body approximately 1600 yds x 200 yds. Depth in the middle is approx. 6 ft. | | | | |
| Colour : Partly clear Odour : Nil | Purpose of use: Recreation, Domestic, Irrigation, & Livestock. | | | | |
| Water availability: Max.- July (16 ft.) Min.- March (6 ft.) | Max. level recorded in the past 10 yrs. : 20 ft. in 1988 | | | | |
| Aquatic vegetations: Water hyacinth & Algae | Interconnection with other water bodies: Nil | | | | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Diarrhoea, Cholera, Dysentery, etc. | | | | |
| Pesticides used near the water body: | Type Dimecron, Malathion, Basudin, How long 10-15 yrs. | | | | |
| Use of fertilizer near the water body: | Type Urea, Gypsum, TSP, etc. How long Since long | | | | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease. Severity - Since 3 yrs. | Seasonal variation - Max. (Sept-Feb.) Effect on use- | | | |
| Precaution taken/ villagers solution: | Nil | | | | |
| Previous water quality data (if any) | NDA | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 24.5 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 7.4 | Ammonia mg/L | 0.6 | Fe mg/L | 1.1 |
| TS mg/L | 46 | Phosphate mg/L | ND | Cr ⁶ mg/L | Nil |
| TDS mg/L | 25 | Chloride mg/L | 4.0 | As mg/L | Nil |
| DO mg/L | 8.0 | Sulphate mg/L | Nil | Total Coliform n/100 ml. | 50 |
| BOD mg/L | 2.5 | COD mg/L | 12.0 | | |

TRANSECT DATA SHEET - GROUND WATER

| | | | |
|---|--|---------------------|----------------------|
| Date/Time : 27. 2. 92 / 4 PM | | Location: | |
| Sample Source : Shallow Tube well | | VII. - Kalatey | |
| Sample Code : G 2 | | U.P. - Annada Nagar | |
| Transect No. : 1 | | U.Z. - Pirgaeha | |
| Tube well owner's name : Mr. Abdul Jobbar | | Dt. - Rangpur | |
| Sketch | Same as in Sample Code G 1 | | |
| Main features/ General description of the tube well | Approximately 500 yds north of the Harudanga Beel. Depth - 70 ft. Diameter - 4". operating average 18 hrs/24 hrs. since 5 yrs. | | |
| Colour : Transparent Odour : Nil | Purpose of use: Irrigation | | |
| Water table: Previous - } Present - } NDA | Alternate water sources: Harudanga Beel | | |
| Description of tube wells along the transect : (900x900) yds. | Type - Depth - No. - | TW 45 200 | STW 70'-75' 16 |
| | | | DTW 350' 2 |
| Recharge patterns : Rainfall Beel discharges | Possibility of exploitation in the near future : | | |
| Water borne diseases in the area : | Type - Diarrhoea, Dysentery, etc. Severity - 3 persons killed in 1991 in diarrhoea | | |
| Previous water quality data (if any) : | NDA | | |
| Sample Analysis Data | | | |
| Temp. °C | 26.0 | Nitrate mg/L | Nil |
| pH | 6.5 | Phosphate mg/L | ND |
| TS | mg/L 133 | Chloride mg/L | 6.8 |
| TDS | mg/L 53 | Bromide mg/L | ND |
| DO | mg/L 0.8 | Fluoride mg/L | ND |
| BOD | mg/L 12.0 | Sulphate mg/L | Nil |
| Ammonia | mg/L 1.2 | Boron mg/L | ND |
| | | Zinc mg/L | ND |
| | | Iron mg/L | 2.9 |
| | | Chromium mg/L | Nil |
| | | Arsenic mg/L | Nil |
| | | Molybdenum mg/L | ND |
| | | COD mg/L | 18.0 |
| | | Total coliform | rv/100 ml. 12.0 |

TRANSECT DATA SHEET - SURFACE WATER

| | | |
|---|--|-------------------------------|
| Date/Time : 28.2.92/12-05 PM | Location: | |
| Sample Source : Teesta River | Vill. - Painal Ghat | |
| Sample Code : G3 | U.P. - | |
| Sampling Point : Approx. 800 yds. south-east of Painal Ghat Groyene | U.Z. - Pingacha | |
| Transect No. : Nil | Dist. - Rangpur | |
| Sketch |  | |
| Main features/General description of the water body | West channel of the Teesta river. Depth at the middle is approx. 16 ft. | |
| Colour : Partly clear Odour : Nil | Purpose of use: Recreation, Drinking, Navigation. | |
| Water availability: Max. - 30 ft (Aug) Min. - 12 ft (March) | Max. level recorded in the past 10 yrs. : 50 ft in 1988 | |
| Aquatic vegetations: Nil | Interconnection with other water bodies: Jamuna river in down stream near Haripur | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Diarrhoea | |
| Pesticides used near the water body: | Type Furadan, Malathion, Thiodin etc. How long 15-16 yrs | |
| Use of fertilizer near the water body: | Type Urea, TSP, MP, Zinc sulphate etc. How long 15-16 yrs | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease Severity - Since 4-5 yrs Seasonal variation - Max in Oct/Nov. Effect on use - | |
| Precaution taken/villagers solution: | Nil | |
| Previous water quality data (if any) | NDA | |
| Sample Analysis Data | | |
| Temp. °C : 22.0 | Nitrate mg/L : Nil | Zn mg/L : ND |
| pH : 7.7 | Ammonia mg/L : 0.2 | Fe mg/L : 1.8 |
| TS mg/L : 149 | Phosphate mg/L : ND | Cr ⁶⁺ mg/L : Nil |
| TDS mg/L : 51 | Chloride mg/L : 8.0 | As mg/L : Nil |
| DO mg/L : 8.4 | Sulphate mg/L : Nil | Total Coliform n/100 ml : 160 |
| BOD mg/L : 1.8 | COD mg/L : 12.0 | |

TRANSECT DATA SHEET - SURFACE WATER

| | | | | | |
|--|------|--|------|--------------------------|-----|
| Date/Time : 29.2.92/10-30 AM | | Location: | | | |
| Sample Source : Bamandanga Beel | | VII. - Ramvadra | | | |
| Sample Code : G4 | | U.P. - Sarbananda | | | |
| Sampling Point : South-east corner | | U.Z. - Sundar gongj | | | |
| Transect No. : 2 | | DI. - Gaibandha | | | |
| Sketch | | | | | |
| Main features/ General description of the water body | | In dry season acts as a closed water body, but in monsoon flood water enters through canals. Area 2000yds X 300yds. Depth approx. 12 ft. | | | |
| Colour : Clear Odour : Nil | | Purpose of use: Recreation, Domestic & Irrigation | | | |
| Water availability: Max.- 20ft (July) Min.- 8ft (March) | | Max. level recorded in the past 10 yrs. : 24 ft in 1988 | | | |
| Aquatic vegetations: Water hyacinth, Algae, Rooted plants etc. | | Interconnection with Teesta river & Gchagot other water bodies: river during Jun.- Oct. | | | |
| Effluent discharges into the water body: Nil | | Water borne diseases among the villagers: Dysentery | | | |
| Pesticides used near the water body: | | Type Thiodin, Thionol, Danada, Dieremion How long Since 10 yrs. | | | |
| Use of fertilizer near the water body: | | Type Urea, TSP, MP, Zypsum, Zinc sulphate How long Since 10 yrs. | | | |
| Pollution/Toxicity problem (if any) : | | Type - Fish disease Severity- 50% died in 1991 Seasonal variation- Effect on use- Increases with flood water intakes | | | |
| Precaution taken/ villagers solution: | | Nil | | | |
| Previous water quality data (if any) | | NDA | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 22.0 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 8.0 | Ammonia mg/L | 0.3 | Fe mg/L | 0.9 |
| TS mg/L | 117 | Phosphate mg/L | ND | Cr ⁶ mg/L | Nil |
| TDS mg/L | 54 | Chloride mg/L | 6.0 | As mg/L | Nil |
| DO mg/L | 8.0 | Sulphate mg/L | Nil | Total Coliform n/100 ml. | 120 |
| BOD mg/L | 3.0 | COD mg/L | 30.0 | | |

TRANSECT DATA SHEET - GROUND WATER

| | | | |
|--|---|--------------------------|----------------------|
| Date/Time : 29.2.92/11-30 AM | | Location: | |
| Sample Source: Shallow Tubewell | | Vil. - Ramvadra | |
| Sample Code : G5 | | U.P. - Sarbananda | |
| Transect No. : 2 | | U.Z. - Sundar gonj | |
| Tube well owner's name : Mr. Delwar Hossain | | DI. - Gaibandha | |
| Sketch | Same as in Sample Code G4 | | |
| Main features/ General description of the tube well | Approx. 300 yds east of Bamandanga Beel. Depth - 80 ft, Diameter - 5". operating average 8-10 hrs/24 hr since 2 yrs. | | |
| Colour : Transparent Odour : Nil | Purpose of use: Irrigation | | |
| Water table: Previous - } Present - } NDA | Alternate water sources: Bamandanga Beel | | |
| Description of tube wells along the transect : (900x450) yds. approx | Type - Depth - No. - | TW 50'-60' 150 | STW 70'-80' 50 |
| | | | DTW 250' 3 |
| Recharge patterns : Rainfall Beel discharges Flood | Possibility of exploitation in the near future : | | |
| Water borne diseases in the area : | Type - Diarrhoea, Dysentery Severity - | | |
| Previous water quality data (if any) : | NDA | | |
| Sample Analysis Data | | | |
| Temp. °C | 26.0 | Nitrate mg/L | Nil |
| pH | 6.7 | Phosphate mg/L | ND |
| TS | 290 | Chloride mg/L | 14.0 |
| TDS | 165 | Bromide mg/L | ND |
| DO | 2.0 | Fluoride mg/L | ND |
| BOD | 22.0 | Sulphate mg/L | Nil |
| Ammonia mg/L | 1.6 | Boron mg/L | ND |
| | | Zinc mg/L | ND |
| | | Iron mg/L | 8.0 |
| | | Chromium mg/L | Nil |
| | | Arsenic mg/L | Nil |
| | | Molybdenum mg/L | ND |
| | | COD mg/L | 40.0 |
| | | Total coliform n/100 ml. | 80 |

TRANSECT DATA SHEET - GROUND WATER

| | | | |
|---|---|--------------------------|---------------------|
| Date/Time : 1.3.92/11 AM | | Location: | |
| Sample Source : Deep Tubewell | | VII. - Chamar Tari | |
| Sample Code : G 6 | | U.P. - Chandipur | |
| Transect No. : 3 | | U.Z. - Sundar gony | |
| Tube well owner's name : GRAMEEN BANK | | DI. - Gaibandha | |
| Sketch | | | |
| Main features/ General description of the tube well | Approximately 600 yds west of T.R.E. (New) Depth - 375 ft., Diameter - 8 inch., Operating average 14 hrs/day. | | |
| Colour : Transparent Odour : Nil | Purpose of use: Irrigation | | |
| Water table: Previous - NDA Present - NDA | Alternate water sources: Nil | | |
| Description of tube wells along the transect : (1500X1500) yds. | Type - Depth - No. - | TW 46' 70 | STW 75-80' 17 |
| | | | DTW 375' 1 |
| Recharge patterns : Rainfall River discharges | Possibility of exploitation in the near future : | | |
| Water borne diseases in the area : | Type - Severity - | Dysentery, Diarrhoea | |
| Previous water quality data (if any) : | NDA | | |
| Sample Analysis Data | | | |
| Temp. °C | 26.0 | Nitrate mg/L | Nil |
| pH | 6.7 | Phosphate mg/L | ND |
| TS | 184 | Chloride mg/L | 6.0 |
| TDS | 92 | Bromide mg/L | ND |
| DO | 0.3 | Fluoride mg/L | ND |
| BOD | 2.5 | Sulphate mg/L | 1.1 |
| Ammonia mg/L | 1.3 | Boron mg/L | ND |
| | | Zinc mg/L | ND |
| | | Iron mg/L | 5.8 |
| | | Chromium mg/L | Nil |
| | | Arsenic mg/L | Nil |
| | | Molybdenum mg/L | ND |
| | | COD mg/L | 32.0 |
| | | Total coliform n/100 ml. | Nil |

TRANSECT DATA SHEET - GROUND WATER

| | | | | | |
|--|--|-----------------------|----------------------|-----------------|----------------|
| Date/Time : 1.3.92/10 AM | | Location: | | | |
| Sample Source : Tube well | | VII. - Ujan Bochagari | | | |
| Sample Code : G 7 | | U.P. - Chandipur | | | |
| Transect No. : 3 | | U.Z. - Sundarگونج | | | |
| Tube well owner's name : Mr. Mrinal Kumar | | Dist. - Gaibandha | | | |
| Sketch | Same as in Sample Code G6 | | | | |
| Main features/ General description of the tube well | Approximately 200 yds. west of the Teesta river and 800 yds. east of TRE towards river side. Depth - 46 ft, Diameter - 4". Platform of the tubewell is not cemented. | | | | |
| Colour : Transparent Odour : Nil | Purpose of use: Drinking & Domestic | | | | |
| Water table: Previous - } Present - } NDA | Alternate water sources: Teesta river | | | | |
| Description of tube wells along the transect: (1500 X 1500) yds. | Type - Depth - No. - | TW 46' 70 | STW 75'-80' 17 | | |
| Recharge patterns: Rain fall River discharges Flood | DTW 375' 1 | | | | |
| Water borne diseases in the area : | Possibility of exploitation in the near future : | | | | |
| Previous water quality data (if any) : | Type - Severity- Dysentery | | | | |
| Previous water quality data (if any) : NDA | | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 24.5 | Nitrate mg/L | Nil | Zinc mg/L | ND. |
| pH | 6.5 | Phosphate mg/L | ND | Iron mg/L | 1.2 |
| TS | mg/L 160 | Chloride mg/L | 4.0 | Chromium mg/L | Nil |
| TDS | mg/L 101 | Bromide mg/L | ND | Arsenic mg/L | Nil |
| DO | mg/L 2.0 | Fluoride mg/L | ND | Molybdenum mg/L | ND |
| BOD | mg/L 40.0 | Sulphate mg/L | Nil | COD | mg/L 38.0 |
| Ammonia | mg/L 0.2 | Boron mg/L | ND | Total coliform | rv/100 ml. 100 |

TRANSECT DATA SHEET - SURFACE WATER

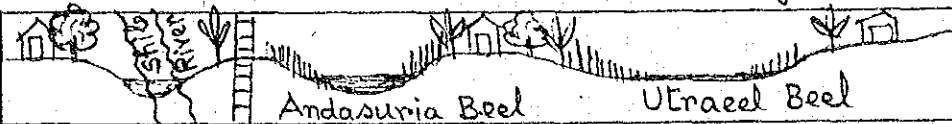
| | | | | | |
|---|------|---|------|--------------------------|------|
| Date/Time : 2.3.92 / 4-30 PM | | Location: | | | |
| Sample Source : Ghagot River | | VII. - Gobindapur | | | |
| Sample Code : G8 | | U.P. - Gaibandha No.3 | | | |
| Sampling Point : 20 yds. south-east of Dist. Rev. Office | | U.Z. - Gaibandha | | | |
| Transect No. : Nil | | Dt. - Gaibandha | | | |
| Sketch | | | | | |
| Main features/ General description of the water body | | Depth at the middle is approx. 10 ft. completely dried due to silt deposit in some locations. | | | |
| Colour : Partly clear Odour : Nil | | Purpose of use: Recreation & Domestic | | | |
| Water availability: Max.- 20 ft (July) Min.- 10 ft (Feb) | | Max. level recorded in the past 10 yrs. : 25 ft in 1988 | | | |
| Aquatic vegetations: Water hyacinth, Algae. | | Interconnection with other water bodies: Jamuna river in the down stream. | | | |
| Effluent discharges into the water body: Domestic | | Water borne diseases among the villagers: Diarrhoea, Dysentery. | | | |
| Pesticides used near the water body: NDA | | Type How long | | | |
| Use of fertilizer near the water body: NDA | | Type How long | | | |
| Pollution/Toxicity problem (if any) : | | Type - Fish disease Seasonal variation - NDA Severity - Since 4 yrs. Effect on use - | | | |
| Precaution taken/ villagers solution: | | Nil | | | |
| Previous water quality data (if any) | | NDA | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 24.5 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 8.0 | Ammonia mg/L | 0.3 | Fe mg/L | 1.1 |
| TS mg/L | 174 | Phosphate mg/L | ND | Cr ⁶⁺ mg/L | Nil |
| TDS mg/L | 102 | Chloride mg/L | 6.0 | As mg/L | Nil |
| DO mg/L | 7.5 | Sulphate mg/L | Nil | Total Coliform n/100 ml. | TNTC |
| BOD mg/L | 6.6 | COD mg/L | 40.0 | | |

2. Regional Surveys

TRANSECT DATA SHEET - SURFACE WATER

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----------------|--------------|--------------------------|---------|----|----|-----|--------------|-----|---------|-----|---------|-----|----------------|----|-----------------------|-----|----------|-----|---------------|-----|---------|-----|---------|-----|---------------|------|--------------------------|-----|----------|-----|----------|------|--|--|--|
| Date/Time : 1.3.92/1-30 PM Sample Source : Brahmaputra River Sample Code : R1 Sampling Point : Approx. 400 yds. north-east of Jorgas Ghat Transect No. : Nil | Location: Vill. - Jorgas Ghat U.P. - Ramna U.Z. - Chilmari Di. - Kurigram | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sketch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Main features/ General description of the water body | Approx. 40 km. down stream from the Indian territory. Depth in the middle is approx. 38 ft. Huge flow of muddy water is reported in July/Aug. almost every year. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Colour : Partly clear Odour : Nil | Purpose of use: Recreation, Navigation, Drinking, etc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water availability: Max. - July/Aug (38') Min. - Feb/Mar. (18') | Max. level recorded in the past 10 yrs. : In 1988 45 ft. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aquatic vegetations: Algae | Interconnection with 2 km downstream with Teesta other water bodies: & 15 km. upstream with Dharla | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Dysentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pesticides used near the water body: | Type Thiol, Malathion, Thiodin, etc. How long 10/15 yrs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Use of fertilizer near the water body: | Type Urea, TSP, MP, etc. How long 10/15 yrs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pollution/Toxicity problem (if any) : | Type - Fish killing Seasonal variation- Max. in Nov./Dec. Severity- Since 1989 Effect on use- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Precaution taken/ villagers solution: Nil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Previous water quality data (if any) NDA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Analysis Data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Temp. °C</td> <td style="width: 15%;">21.0</td> <td style="width: 15%;">Nitrate mg/L</td> <td style="width: 15%;">Nil</td> <td style="width: 15%;">Zn mg/L</td> <td style="width: 15%;">ND</td> </tr> <tr> <td>pH</td> <td>8.2</td> <td>Ammonia mg/L</td> <td>0.1</td> <td>Fe mg/L</td> <td>0.7</td> </tr> <tr> <td>TS mg/L</td> <td>212</td> <td>Phosphate mg/L</td> <td>ND</td> <td>Cr⁶⁺ mg/L</td> <td>Nil</td> </tr> <tr> <td>TDS mg/L</td> <td>182</td> <td>Chloride mg/L</td> <td>6.0</td> <td>As mg/L</td> <td>Nil</td> </tr> <tr> <td>DO mg/L</td> <td>8.7</td> <td>Sulphate mg/L</td> <td>11.3</td> <td>Total Coliform n/100 ml.</td> <td>300</td> </tr> <tr> <td>BOD mg/L</td> <td>2.6</td> <td>COD mg/L</td> <td>25.0</td> <td></td> <td></td> </tr> </table> | Temp. °C | 21.0 | Nitrate mg/L | Nil | Zn mg/L | ND | pH | 8.2 | Ammonia mg/L | 0.1 | Fe mg/L | 0.7 | TS mg/L | 212 | Phosphate mg/L | ND | Cr ⁶⁺ mg/L | Nil | TDS mg/L | 182 | Chloride mg/L | 6.0 | As mg/L | Nil | DO mg/L | 8.7 | Sulphate mg/L | 11.3 | Total Coliform n/100 ml. | 300 | BOD mg/L | 2.6 | COD mg/L | 25.0 | | | |
| Temp. °C | 21.0 | Nitrate mg/L | Nil | Zn mg/L | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH | 8.2 | Ammonia mg/L | 0.1 | Fe mg/L | 0.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TS mg/L | 212 | Phosphate mg/L | ND | Cr ⁶⁺ mg/L | Nil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TDS mg/L | 182 | Chloride mg/L | 6.0 | As mg/L | Nil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DO mg/L | 8.7 | Sulphate mg/L | 11.3 | Total Coliform n/100 ml. | 300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BOD mg/L | 2.6 | COD mg/L | 25.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TRANSECT DATA SHEET - SURFACE WATER

| | | | |
|---|--|--------------------|------------------------------|
| Date/Time : 7.3.92/10-30 AM | Location: | | |
| Sample Source : Shilb River | Vil. - Choubaria | | |
| Sample Code : R2 | U.P. - Verso | | |
| Sampling Point : 150 yds west of Choubaria Bus stand | U.Z. - Manda | | |
| Transect No. : 1 | Di. - Naogaon | | |
| Sketch |  | | |
| Main features/ General description of the water body | During dry season acts as a closed water body and gets completely dried in some locations since few years. | | |
| Colour : Turbid Odour : Nil | Purpose of use: Recreation, Irrigation, etc. | | |
| Water availability: Max. - July/Aug (35') Min. - Feb./Mar. (20') | Max. level recorded in the past 10 yrs. : In 1988 — 40ft | | |
| Aquatic vegetations: Algae, Water Hyacinth | Interconnection with other water bodies: Upstream with Atrai & downstream with Barnai | | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Diarrhoea, Cholera, etc. | | |
| Pesticides used near the water body: | Type Sumithion, Furadan, Basudin, etc. How long 10 yrs. | | |
| Use of fertilizer near the water body: | Type Urea, TSP, Zinc etc. How long 10 yrs. | | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease Seasonal variation - Max in Sept/Oct. Severity - Since few yrs. Effect on use- | | |
| Precaution taken/ villagers solution: | Nil | | |
| Previous water quality data (if any) | NDA | | |
| Sample Analysis Data | | | |
| Temp. °C | 23.3 | Nitrate mg/L Nil | Zn mg/L ND |
| pH | 7.7 | Ammonia mg/L 0.3 | Fe mg/L 1.9 |
| TS mg/L | 152 | Phosphate mg/L ND | Cr ⁶ mg/L Nil |
| TDS mg/L | 94 | Chloride mg/L 14.0 | As mg/L Nil |
| DO mg/L | 6.9 | Sulphate mg/L 0.5 | Total Coliform n/100 ml. 110 |
| BOD mg/L | 2.7 | COD mg/L 24.0 | |

TRANSECT DATA SHEET - SURFACE WATER

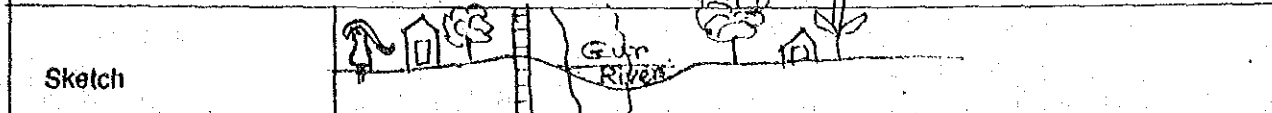
| | | | | | |
|--|---|----------------|------|--------------------------|-----|
| Date/Time : 7.3.92 / 12 Noon | | Location: | | | |
| Sample Source : Andasuria Beel | | VII. - Bakapur | | | |
| Sample Code : R3 | | U.P. - Verso | | | |
| Sampling Point : 250 yds north-east of Choubaria Bus Stand | | U.Z. - Manda | | | |
| Transect No. : 1 | | DI. - Naogaon | | | |
| Sketch | Some as in Sample code R2 | | | | |
| Main features/ General description of the water body | Never gets dried and very rich with aquatic plants. Depth in the middle is approx. 10 ft. Acts as closed water body during dry season. | | | | |
| Colour : Transparent Odour : Nil | Purpose of use: Recreation, Irrigation, Drinking, etc. | | | | |
| Water availability: Max. - Aug (30 ft.) Min. - Mar (10 ft.) | Max. level recorded in the past 10 yrs. : 1988 → 35 ft. | | | | |
| Aquatic vegetations: Rooted plants, Algae, Hyacinth | Interconnection with other water bodies: Utraeal Beel only in the summer. | | | | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Diarrhoea, Dysentery etc. | | | | |
| Pesticides used near the water body: | Type Dieremon, Malathion, Sumithion, etc. How long 10-15 yrs. | | | | |
| Use of fertilizer near the water body: | Type Urea, TSP, MP, etc. How long 10-15 yrs. | | | | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease Seasonal variation - Increases after Severity - 3-4 yrs Effect on use - flood water intakes | | | | |
| Precaution taken/ villagers solution: | Nil | | | | |
| Previous water quality data (if any) | NDA | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 24.5 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 7.5 | Ammonia mg/L | 0.2 | Fe mg/L | 1.0 |
| TS mg/L | 100 | Phosphate mg/L | ND | Cr ⁶ mg/L | Nil |
| TDS mg/L | 65 | Chloride mg/L | 11.0 | As mg/L | Nil |
| DO mg/L | 8.4 | Sulphate mg/L | Nil | Total Coliform n/100 ml. | 120 |
| BOD mg/L | 4.2 | COD mg/L | 20.0 | | |

TRANSECT DATA SHEET - SURFACE WATER

| | | | | | |
|--|---|---------------------|------|-------------------------|-----|
| Date/Time : 7.3.92/ 1-30 PM | | Location: | | | |
| Sample Source : Utraeel Beel | | VII. - Beel Utraeel | | | |
| Sample Code : R4 | | U.P. - Verso | | | |
| Sampling Point : South central | | U.Z. - Manda | | | |
| Transect No. : 1 | | DI. - Naogaon | | | |
| Sketch | Same as in Sample Code R2 | | | | |
| Main features/ General description of the water body | Partly dried during dry season. Depth in the middle is approx 8 ft. | | | | |
| Colour : Turbid Odour : Nil | Purpose of use: Irrigation, Domestic, etc. | | | | |
| Water availability: Max. - Aug. (20 ft.) Min. - March (6 ft.) | Max. level recorded in the past 10 yrs. : In 1988 20 ft. | | | | |
| Aquatic vegetations: Water Hyacinth | Interconnection with other water bodies: Beel Andasuria and Beel Pobni | | | | |
| Effluent discharges into the water body: Domestic | Water borne diseases among the villagers: Diarrhoea, Dysentery, etc. | | | | |
| Pesticides used near the water body: | Type Furadan, Thiodin, Sumithion, etc How long 10 yrs. | | | | |
| Use of fertilizer near the water body: | Type Urea, Zypsum, TSP, etc. How long 10 Yrs. | | | | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease Seasonal variation - Max. after Severity - Since 4 yrs. Effect on use - flood. | | | | |
| Precaution taken/ villagers solution: | Nil | | | | |
| Previous water quality data (if any) | NDA | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 23.3 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 7.5 | Ammonia mg/L | 0.3 | Fe mg/L | 0.9 |
| TS mg/L | 145 | Phosphate mg/L | ND | Cr ⁶⁺ mg/L | Nil |
| TDS mg/L | 94 | Chloride mg/L | 10.0 | As mg/L | Nil |
| DO mg/L | 7.6 | Sulphate mg/L | Nil | Total Coliform /100 ml. | 140 |
| BOD mg/L | 5.0 | COD mg/L | 22.0 | | |

TRANSECT DATA SHEET - SURFACE WATER

| | |
|--|------------------|
| Date/Time : 5.3.92/11-30AM | Location: |
| Sample Source : Gur River | Vill. - Solakura |
| Sample Code : R5 | U.P. - Singra |
| Sampling Point : 250 yds south of Singra bridge. | U.Z. - Singra |
| Transect No. : 2 | DI. - Natore |



Main features/ General description of the water body: In the dry season acts as a closed water body due to cross bar across the river both in the upstream and downstream areas. Depth of the river in the middle is approx 20' (wet season) & 10' (dry season)

| | |
|-------------------------------|---|
| Colour : Clear Odour : Nil | Purpose of use: Domestic, Navigation and Irrigation |
|-------------------------------|---|

| | |
|--|---|
| Water availability: Max. - 25' (Avg) Min. - 10' (Mar) | Max. level recorded in the past 10 yrs. : 40 ft in 1988 |
|--|---|

| | |
|---|--|
| Aquatic vegetations: Water hyacinth - tech. | Interconnection with other water bodies: Nagor river & Nondokuja river |
|---|--|

| | |
|---|--|
| Effluent discharges into the water body: Domestic | Water borne diseases among the villagers: Cholera, Dysentery |
|---|--|

| | |
|--------------------------------------|---|
| Pesticides used near the water body: | Type Diazinon, Malathion, Sumithion How long 15 yrs. |
|--------------------------------------|---|

| | |
|--|--|
| Use of fertilizer near the water body: | Type TSP, Urea, MP, Zinc etc. How long 14-15 yrs. |
|--|--|

| | |
|--------------------------------------|---|
| Pollution/Toxicity problem (if any): | Type - Fish disease Seasonal variation - Max in Sept-Dec. Severity - Since 3-4 yrs. Effect on use- |
|--------------------------------------|---|

| | |
|---------------------------------------|-----|
| Precaution taken/ villagers solution: | Nil |
|---------------------------------------|-----|

| | |
|--------------------------------------|-----|
| Previous water quality data (if any) | NDA |
|--------------------------------------|-----|

Sample Analysis Data

| | | | | | |
|----------|------|----------------|------|-------------------------|-----|
| Temp. °C | 23.3 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 7.7 | Ammonia mg/L | 0.1 | Fe mg/L | 1.1 |
| TS mg/L | 105 | Phosphate mg/L | ND | Cr ⁶ mg/L | Nil |
| TDS mg/L | 70 | Chloride mg/L | 8.0 | As mg/L | Nil |
| DO mg/L | 6.9 | Sulphate mg/L | 0.4 | Total Coliform /100 ml. | 116 |
| BOD mg/L | 2.8 | COD mg/L | 26.0 | | |

TRANSECT DATA SHEET - GROUND WATER

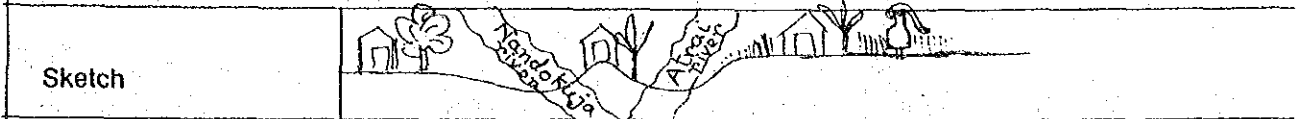
| | | |
|---|---|----------------------------|
| Date/Time : 5.3.92/ 1-00 PM | Location: | |
| Sample Source : Tubewell | Vil. - Patkol | |
| Sample Code : R6 | U.P. - Singra | |
| Transect No. : 2 | U.Z. - Singra | |
| Tube well owner's name : Mr. Afaz Ali | Di. - Natore | |
| Sketch | Same as in Sample Code R5 | |
| Main features/ General description of the tube well | Approx. 150 yds. south-east of Singra Bridge. Depth of the tubewell is 66 ft. Diameter 4 inch. Platform is not cemented | |
| Colour : Transparent Odour : Nil | Purpose of use: Drinking | |
| Water table: Previous - } Present - } NDA | Alternate water sources: Gur River | |
| Description of tube wells along the transect: (900 x 900) Yds. Type - TW STW DTW Depth - 66'-70' 80'-90' 400' No. - 68 22 3 | | |
| Recharge patterns : Rainfall / River discharges | Possibility of exploitation in the near future : | |
| Water borne diseases in the area : | Type - Cholera, Dysentery etc. Severity- | |
| Previous water quality data (If any) : | NDA | |
| Sample Analysis Data | | |
| Temp. °C 25.2 | Nitrate mg/L Nil | Zinc mg/L ND |
| pH mg/L 6.8 | Phosphate mg/L ND | Iron mg/L 1.6 |
| TS mg/L 230 | Chloride mg/L 22.0 | Chromium mg/L Nil |
| TDS mg/L 178 | Bromide mg/L ND | Arsenic mg/L Nil |
| DO mg/L 2.2 | Fluoride mg/L ND | Molybdenum mg/L ND |
| BOD mg/L 12.1 | Sulphate mg/L 8.5 | COD mg/L 42.0 |
| Ammonia mg/L 1.3 | Boron mg/L ND | Total coliform /100 ml. 34 |

TRANSECT DATA SHEET - SURFACE WATER

| | | | | | |
|--|---|----------------|------|--------------------------|-----|
| Date/Time : 10.3.92 / 3-30 PM | Location: | | | | |
| Sample Source : Nandokuja River | Vill. - Holoigari | | | | |
| Sample Code : R7 | U.P. - Chamari | | | | |
| Sampling Point : Holoigari Ghat | U.Z. - Singra | | | | |
| Transect No. : Nil | Dist. - Natore | | | | |
| Sketch | | | | | |
| Main features/ General description of the water body | Open water body. Depth in the middle is approx. 12 ft. Water quality suffered almost every year due to Natore Sugar Mills waste disposal. | | | | |
| Colour : Black Odour : Bad | Purpose of use: Domestic | | | | |
| Water availability: Max. - 20' (Avg) Min. - 10 (Mar) | Max. level recorded in the past 10 yrs. : 28 ft. in 1988 | | | | |
| Aquatic vegetations: Nil | Interconnection with other water bodies: Upstream with Narodth & downstream with Atrai river | | | | |
| Effluent discharges into the water body: Industrial & Domestic | Water borne diseases among the villagers: Dysentery | | | | |
| Pesticides used near the water body: | Type Thiol, Furadan, Malathion etc How long 10-15 YRS. | | | | |
| Use of fertilizer near the water body: | Type Urea, TSP, MP, etc. How long 10-15 YRS. | | | | |
| Pollution/Toxicity problem (if any): | Type - Water blackening & Fish Killing. Severity - Every year. Seasonal variation - Max during Sugar Mills cleaning operations. Effect on use - | | | | |
| Precaution taken/ villagers solution: | Nil | | | | |
| Previous water quality data (if any) | NDA | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 25.6 | Nitrate mg/L | 0.2 | Zn mg/L | ND |
| pH | 8.2 | Ammonia mg/L | 1.2 | Fe mg/L | 0.9 |
| TS mg/L | 394 | Phosphate mg/L | ND | Cr ⁶ mg/L | Nil |
| TDS mg/L | 332 | Chloride mg/L | 15.0 | As mg/L | Nil |
| DO mg/L | 1.8 | Sulphate mg/L | Nil | Total Coliform n/100 ml. | 80 |
| BOD mg/L | 40.0 | COD mg/L | 52.0 | | |

TRANSECT DATA SHEET - SURFACE WATER

| | |
|--|-----------------------|
| Date/Time : 8.3.92 / 11-00 AM | Location: |
| Sample Source : Nandokuja River | Vill. - Chaskor Bazar |
| Sample Code : R8 | U.P. - Gurudaspur |
| Sampling Point : 50 yds west of Chaskor Kheaghat | U.Z. - Gurudaspur |
| Transect No. : 3 | Dist. - Natore |



| | |
|--|---|
| Main features/ General description of the water body | During winter closed water body due to cross-bar construction. Down stream areas completely dried in March/April. Depth in the middle is approx. 10ft |
|--|---|

| | |
|--------------------------------|---|
| Colour : Turbid Odour : Nil | Purpose of use: Recreation & Irrigation |
|--------------------------------|---|

| | |
|--|---|
| Water availability: Max. - July (25') Min. - Mar. (10') | Max. level recorded in the past 10 yrs. : In 1988 35' |
|--|---|

| | |
|--|--|
| Aquatic vegetations: Water Hyacinth - Teh. | Interconnection with Bidma river in upstream other water bodies: & Atrai river in downstream |
|--|--|

| | |
|---|---|
| Effluent discharges into the water body: Domestic | Water borne diseases among the villagers: Diarrhoea |
|---|---|

| | |
|--------------------------------------|---|
| Pesticides used near the water body: | Type Heptachlor, Basudin, Nogos, etc How long 10-15 yrs. |
|--------------------------------------|---|

| | |
|--|---|
| Use of fertilizer near the water body: | Type Urea, Zinc, TSP, etc. How long 10-15 yrs. |
|--|---|

| | |
|---------------------------------------|---|
| Pollution/Toxicity problem (if any) : | Type - Water blackening Severity - 2 fish killing Since few yrs. Seasonal variation - Max. Feb./March Effect on use - |
|---------------------------------------|---|

| | |
|--------------------------------------|-----|
| Precaution taken/villagers solution: | Nil |
|--------------------------------------|-----|

| | |
|--------------------------------------|-----|
| Previous water quality data (if any) | NDA |
|--------------------------------------|-----|

Sample Analysis Data

| | | | | | |
|----------|------|----------------|------|--------------------------|------|
| Temp. °C | 25.1 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 8.0 | Ammonia mg/L | 0.7 | Fe mg/L | 1.1 |
| TS mg/L | 384 | Phosphate mg/L | ND | Cr ⁶⁺ mg/L | Nil |
| TDS mg/L | 330 | Chloride mg/L | 19.0 | As mg/L | Nil |
| DO mg/L | 5.4 | Sulphate mg/L | 0.1 | Total Coliform n/100 ml. | TNTE |
| BOD mg/L | 4.0 | COD mg/L | 60.0 | | |

TRANSECT DATA SHEET - SURFACE WATER

| | | | | | |
|--|---|-----------------------|------|-------------------------|-----|
| Date/Time : 8.3.92/ 12 Noon | | Location: | | | |
| Sample Source : Atrai River | | VIII. - Chaskor Bazar | | | |
| Sample Code : R9 | | U.P. - Gurudaspur | | | |
| Sampling Point : 75 yds north-west of Chaskor Kheaghat | | U.Z. - Gurudaspur | | | |
| Transect No. : 3 | | DI. - Natore | | | |
| Sketch | Same as in Sample Code R8 | | | | |
| Main features/ General description of the water body | Down stream completely dries up during March - April. Depth in March is approx. 12 ft. | | | | |
| Colour : Turbid Odour : Nil | Purpose of use: Recreation & Irrigation | | | | |
| Water availability: Max. - Aug (30') Min. - Apr. (10') | Max. level recorded in the past 10 yrs. : 35 ft in 1988 | | | | |
| Aquatic vegetations: Water hyacinth - teh | Interconnection with other water bodies: Nandokuja river in downstream | | | | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Diarrhoea, Dysentery etc. | | | | |
| Pesticides used near the water body: | Type Sumithion, Furadan, Heptachlor How long 10-15 yrs. | | | | |
| Use of fertilizer near the water body: | Type Urea, TSP, MP, etc How long 10-15 yrs. | | | | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease Seasonal variation - Max. after Severity - Few yrs. Effect on use - flood water goes | | | | |
| Precaution taken/ villagers solution: | Nil | | | | |
| Previous water quality data (if any) | NDA | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 24.5 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 8.0 | Ammonia mg/L | 0.6 | Fe mg/L | 0.9 |
| TS mg/L | 406 | Phosphate mg/L | ND | Cr ⁶⁺ mg/L | Nil |
| TDS mg/L | 350 | Chloride mg/L | 18.0 | As mg/L | Nil |
| DO mg/L | 6.2 | Sulphate mg/L | 0.4 | Total Coliform /100 ml. | 190 |
| BOD mg/L | 3.1 | COD mg/L | 65.0 | | |

TRANSECT DATA SHEET - GROUND WATER

| | | | | | |
|--|--|----------------------------|------------------|--------------------------|------|
| Date/Time : 8.3.92/1-00 PM | | Location: | | | |
| Sample Source : Shallow Tubewell | | Vill. - Ananda Nagar | | | |
| Sample Code : R10 | | U.P. - Gurudaspur | | | |
| Transect No. : 3 | | U.Z. - Gurudaspur | | | |
| Tube well owner's name : Mr. Ahmed Seikh | | Dt. - Natore | | | |
| Sketch | Same as in Sample Code R8 | | | | |
| Main features/ General description of the tube well | Shallow tube well approx. 250 yds north-west of Chaskhar Bazar. Depth of the tubewell is approx. 110 ft. Diameter 6 inch. Operating average 16 hrs./24 hrs | | | | |
| Colour : Transparent Odour : Nil | Purpose of use: Irrigation | | | | |
| Water table: Previous - } Present - } NDA | Alternate water sources: Atrai river | | | | |
| Description of tube wells along the transect (800x800) Yds No. | Type - TW 60' 67 | STW 100'-110' 15 | DTW 400' 3 | | |
| Recharge patterns : Rainfall, River discharge, Flood | Possibility of exploitation in the near future : | | | | |
| Water borne diseases in the area : | Type - Severity- | Diarrhoea, Dysentery, etc. | | | |
| Previous water quality data (if any) : | NDA | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 26.5 | Nitrate mg/L | Nil | Zinc mg/L | ND |
| pH | 6.7 | Phosphate mg/L | ND | Iron mg/L | 0.9 |
| TS | 257 | Chloride mg/L | 20.0 | Chromium mg/L | Nil |
| TDS | 212 | Bromide mg/L | ND | Arsenic mg/L | Nil |
| DO | 2.6 | Fluoride mg/L | ND | Molybdenum mg/L | ND |
| BOD | 7.5 | Sulphate mg/L | 14.1 | COD mg/L | 22.0 |
| Ammonia mg/L | 1.0 | Boron mg/L | ND | Total coliform n/100 ml. | 96 |

TRANSECT DATA SHEET - SURFACE WATER

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----------------|--------------|------------------|------------|------|----|----|-----|--------------|-----|----|------|-----|---------|-----|----------------|----|------------------|------|-----|----------|-----|---------------|------|----|------|-----|---------|-----|---------------|------|----------------|------------|-----|----------|-----|----------|------|--|--|--|--|
| Date/Time : 10.3.92 / 10-30 AM Sample Source : Padma River Sample Code : R 11 Sampling Point : 250 yds south-west of Shaik Transect No. : Nil Mokdum Darga Sharif | Location: VII. - Darga para U.P. - Rajshahi U.Z. - Rajshahi Di. - Rajshahi | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sketch | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Main features/ General description of the water body | Approx. 25 kms. away from Indian border. Depth in the middle is approx. 35 ft. Decrease in water flow & huge sand deposition is reported since 20 yrs. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Colour : Pale green Odour : Nil | Purpose of use: Recreation & Navigation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water availability: Max.- July (50 ft.) Min.- March (30 ft.) | Max. level recorded in the past 10 yrs. : 50 ft. - in 1988 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aquatic vegetations: Algae | Interconnection with other water bodies: Jamuna in the down- stream | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Dysentery, Diarrhoea | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pesticides used near the water body: | Type NDA How long | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Use of fertilizer near the water body: | Type NDA How long | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease Severity - Since 4/5 yrs. Seasonal variation - Max in Oct./ Effect on use - Nov. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Precaution taken/ villagers solution: | Nil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Previous water quality data (if any) | Available with DOE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Analysis Data | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Temp. °C</td> <td style="width: 30%;">23.3</td> <td style="width: 30%;">Nitrate mg/L</td> <td style="width: 10%;">Nil</td> <td style="width: 10%;">Zn</td> <td style="width: 10%;">mg/L</td> <td style="width: 10%;">ND</td> </tr> <tr> <td>pH</td> <td>8.1</td> <td>Ammonia mg/L</td> <td>0.2</td> <td>Fe</td> <td>mg/L</td> <td>1.0</td> </tr> <tr> <td>TS mg/L</td> <td>232</td> <td>Phosphate mg/L</td> <td>ND</td> <td>Cr⁶⁺</td> <td>mg/L</td> <td>Nil</td> </tr> <tr> <td>TDS mg/L</td> <td>190</td> <td>Chloride mg/L</td> <td>14.0</td> <td>As</td> <td>mg/L</td> <td>Nil</td> </tr> <tr> <td>DO mg/L</td> <td>8.2</td> <td>Sulphate mg/L</td> <td>22.5</td> <td>Total Coliform</td> <td>iv/100 ml.</td> <td>100</td> </tr> <tr> <td>BOD mg/L</td> <td>4.0</td> <td>COD mg/L</td> <td>40.0</td> <td></td> <td></td> <td></td> </tr> </table> | Temp. °C | 23.3 | Nitrate mg/L | Nil | Zn | mg/L | ND | pH | 8.1 | Ammonia mg/L | 0.2 | Fe | mg/L | 1.0 | TS mg/L | 232 | Phosphate mg/L | ND | Cr ⁶⁺ | mg/L | Nil | TDS mg/L | 190 | Chloride mg/L | 14.0 | As | mg/L | Nil | DO mg/L | 8.2 | Sulphate mg/L | 22.5 | Total Coliform | iv/100 ml. | 100 | BOD mg/L | 4.0 | COD mg/L | 40.0 | | | | |
| Temp. °C | 23.3 | Nitrate mg/L | Nil | Zn | mg/L | ND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH | 8.1 | Ammonia mg/L | 0.2 | Fe | mg/L | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TS mg/L | 232 | Phosphate mg/L | ND | Cr ⁶⁺ | mg/L | Nil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TDS mg/L | 190 | Chloride mg/L | 14.0 | As | mg/L | Nil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DO mg/L | 8.2 | Sulphate mg/L | 22.5 | Total Coliform | iv/100 ml. | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BOD mg/L | 4.0 | COD mg/L | 40.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TRANSECT DATA SHEET - SURFACE WATER

| | | | |
|--|------|---|---------------------------------------|
| Date/Time : 7.3.92 / 5-30 PM | | Location: | |
| Sample Source : Bangali River | | Vill. - Sariakandi | |
| Sample Code : R 12 | | U.P. - Sariakandi | |
| Sampling Point : Sariakandi ferry ghat | | U.Z. - Sariakandi | |
| Transect No. : Nil | | Dt. - Bogra | |
| Sketch | | | |
| Main features/ General description of the water body | | Depth of the river at the middle is approx. 12ft. Silt deposition is reportedly increasing every year. | |
| Colour : Turbid Odour : Nil | | Purpose of use: Navigation & Recreation | |
| Water availability: Max. - July/Aug (25') Min. - March/Apr. (10') | | Max. level recorded in the past 10 yrs. : 30ft. in 1988 | |
| Aquatic vegetations: Water hyacinth -tech, Algae | | Interconnection with Jamuna in the down-stream other water bodies: & Karotia in upstream | |
| Effluent discharges into the water body: Domestic | | Water borne diseases among the villagers: Diarrhoe. | |
| Pesticides used near the water body: | | Type Sumithion, Dieldrin, Furadan How long 10 yrs. | |
| Use of fertilizer near the water body: | | Type Urea, TSP, Zinc How long 10 yrs. | |
| Pollution/Toxicity problem (if any) : NDA | | Type - Severity- | Seasonal variation- Effect on use- |
| Precaution taken/ villagers solution: | | Nil | |
| Previous water quality data (if any) | | NDA | |
| Sample Analysis Data | | | |
| Temp. °C | 25.6 | Nitrate mg/L | Nil |
| pH | 8.2 | Ammonia mg/L | 0.2 |
| TS mg/L | 126 | Phosphate mg/L | ND |
| TDS mg/L | 88 | Chloride mg/L | 7.0 |
| DO mg/L | 8.3 | Sulphate mg/L | Nil |
| BOD mg/L | 1.5 | COD mg/L | 28.0 |
| | | Zn mg/L | ND |
| | | Fe mg/L | 0.9 |
| | | Cr ⁶⁺ mg/L | Nil |
| | | As mg/L | Nil |
| | | Total Coliform | rv/100 ml. 170 |

TRANSECT DATA SHEET - SURFACE WATER

| | | |
|--|--|--|
| Date/Time : 9.3.92/12-30 PM Sample Source : Hurasagar River Sample Code : R13 Sampling Point : 2500 yds north-west of Nakalia Bazar Transect No. : Nil | Location: VII. - Char Pechakola U.P. - Nakalia U.Z. - Bena Dt. - Palna | |
| Sketch | | |
| Main features/ General description of the water body | Combined flow of Ichamoti, Karotoa, Boral & Dholeswar rivers. Depth in the middle is approx. 12 ft. | |
| Colour : Pale green Odour : Nil | Purpose of use: Navigation & Recreation | |
| Water availability: Max. - Aug (32 ft.) Min. - Apr. (12 ft.) | Max. level recorded in the past 10 yrs. : 36 ft. in 1988 | |
| Aquatic vegetations: Algae | Interconnection with other water bodies: Jamuna in the downstream | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Diarrhoea | |
| Pesticides used near the water body: | Type Diazinon, Malathion, Nogos How long 15 yrs. | |
| Use of fertilizer near the water body: | Type Urea, TSP, MP, etc. How long 15 yrs. | |
| Pollution/Toxicity problem (if any) : | NDA | Type - Severity- Seasonal variation- Effect on use- |
| Precaution taken/villagers solution: | Nil | |
| Previous water quality data (if any) | NDA | |
| Sample Analysis Data | | |
| Temp. °C : 23.9 pH : 8.0 TS mg/L : 215 TDS mg/L : 162 DO mg/L : 8.0 BOD mg/L : 3.9 | Nitrate mg/L : Nil Ammonia mg/L : 0.3 Phosphate mg/L : ND Chloride mg/L : 9.0 Sulphate mg/L : 0.1 COD mg/L : 38.0 | Zn mg/L : ND Fe mg/L : 1.0 Cr ⁶⁺ mg/L : Nil As mg/L : Nil Total Coliform n/100 ml. : 40 |

TRANSECT DATA SHEET - SURFACE WATER

| | | | | | |
|--|---|-------------------|------|-----------------------|---------------|
| Date/Time : 2.3.92 / 3-30 PM | | Location: | | | |
| Sample Source : Jamuna River | | Vill. - Rasulpur | | | |
| Sample Code : R 15 | | U.P. - Kanehipara | | | |
| Sampling Point : 100 yds south-east of Manas Regulator | | U.Z. - Fulchari | | | |
| Transect No. : Nil | | Dt. - Gaibandha | | | |
| Sketch | | | | | |
| Main features/ General description of the water body | Main Jamuna river. Depth in the middle is approximately 25 ft. | | | | |
| Colour : Turbid Odour : Nil | Purpose of use: Recreation & Navigation | | | | |
| Water availability: Max. - July (60') Min. - Feb. (30') | Max. level recorded in the past 10 yrs. : 80 ft in 1988 | | | | |
| Aquatic vegetations: Nil | Interconnection with other water bodies: Teesta river in the upstream | | | | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Diarrhoea, Dysentery | | | | |
| Pesticides used near the water body: | Type Dieldrin, Basudin, Nogos, etc How long 10-12 yrs. | | | | |
| Use of fertilizer near the water body: | Type Urea, Zypsum, MP, etc. How long 10-12 yrs. | | | | |
| Pollution/Toxicity problem (if any): | Type: Fish disease Severity- 4/5 yrs. Seasonal variation- Max in Sept/Oct. Effect on use- | | | | |
| Precaution taken/ villagers solution: | Nil | | | | |
| Previous water quality data (if any) | Available with DOE | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 21.5 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 8.1 | Ammonia mg/L | 0.3 | Fe mg/L | 1.6 |
| TS mg/L | 132 | Phosphate mg/L | ND | Cr ⁶⁺ mg/L | Nil |
| TDS mg/L | 46 | Chloride mg/L | 7.0 | As mg/L | Nil |
| DO mg/L | 8.6 | Sulphate mg/L | Nil | Total Coliform | r/100 ml. 250 |
| BOD mg/L | 3.0 | COD mg/L | 21.0 | | |

TRANSECT DATA SHEET - SURFACE WATER

| | | | |
|---|--|--------------------|-----------------------------|
| Date/Time : 6.3.92 / 12 Noon Sample Source : Halti Beel Sample Code : R16 Sampling Point : South Central (Goru Mari) Transect No. : 4 | Location: VII. - Halti Beel U.P. - Piprul U.Z. - Natore Dt. - Natore | | |
| Sketch | | | |
| Main features/ General description of the water body | Open water body and gets completely dried in March/April. Depth in the lower part of the Beel is approx. 3 ft. | | |
| Colour : Turbid Odour : Nil | Purpose of use: Fishing & Irrigation | | |
| Water availability: Max. - July (15 ft) Min. - March (0 ft) | Max. level recorded in the past 10 yrs. : 20 ft. in 1988 | | |
| Aquatic vegetations: Nil; Previously Algae & Water hyacinth. | Interconnection with River Atrai and River other water bodies: Barnai through two canals | | |
| Effluent discharges into the water body: Agricultural | Water borne diseases among the villagers: Diarrhoea, Dysentery | | |
| Pesticides used near the water body: | Type Basudin, Furadan, Nogos How long 10/12 yrs. | | |
| Use of fertilizer near the water body: | Type Urea, TSP, MP, Zinc, etc. How long 10/15 yrs. | | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease Seasonal variation - Max in Oct. Severity - Since 3 yrs. Effect on use- | | |
| Precaution taken/ villagers solution: | Nil | | |
| Previous water quality data (if any) | NDA | | |
| Sample Analysis Data | | | |
| Temp. °C | 25.5 | Nitrate mg/L Nil | Zn mg/L ND |
| pH | 7.7 | Ammonia mg/L 0.2 | Fe mg/L 1.0 |
| TS mg/L | 207 | Phosphate mg/L ND | Cr ⁶ mg/L Nil |
| TDS mg/L | 152 | Chloride mg/L 17.0 | As mg/L Nil |
| DO mg/L | 8.0 | Sulphate mg/L 12.0 | Total Coliform n/100 ml. 60 |
| BOD mg/L | 6.6 | COD mg/L 26.0 | |

TRANSECT DATA SHEET - GROUND WATER

| | | | | | |
|---|--|------------------------------------|------------------------|-------------------------|------|
| Date/Time : 6.3.92/ 1-00 PM | | Location: | | | |
| Sample Source : Shallow Tubewell | | vill. - Khulur poa (Halti Beel) | | | |
| Sample Code : R 17 | | U.P. - Piprul | | | |
| Transect No. : 4 | | U.Z. - Natore | | | |
| Tube well owner's name : Mr. Jainal | | Dist. - Natore | | | |
| Sketch | Same as in Sample Code R 16 | | | | |
| Main features/ General description of the tube well | Depth is approx. 110 ft. Diameter 4 inch. Operating average 16 hrs / 24 hrs | | | | |
| Colour : Transparent Odour : Nil | Purpose of use: Irrigation | | | | |
| Water table: Previous - } Present - } NDA | Alternate water sources: Beel water | | | | |
| Description of tube wells along the transect : (900x 900) Yds | Type - Depth - No. - | TW 70'-80' 10 | STW 100'-110' 90 | DTW 375'-400' 5 | |
| Recharge patterns : Rainfall, Flood | Possibility of exploitation in the near future : | | | | |
| Water borne diseases in the area : | Type - Severity- | Diarrhoea, Dysentery | | | |
| Previous water quality data (if any) : | NDA | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 26.9 | Nitrate mg/L | 2.0 | Zinc mg/L | ND |
| p ^H | 7.2 | Phosphate mg/L | ND | Iron mg/L | 1.0 |
| TS | mg/L 375 | Chloride mg/L | 13.0 | Chromium mg/L | Nil |
| TDS | mg/L 315 | Bromide mg/L | ND | Arsenic mg/L | Nil |
| DO | mg/L 2.4 | Fluoride mg/L | ND | Molybdenum mg/L | ND |
| BOD | mg/L 9.0 | Sulphate mg/L | 35.2 | COD mg/L | 55.0 |
| Ammonia mg/L | 0.4 | Boron mg/L | ND | Total coliform n/100 ml | 100 |

TRANSECT DATA SHEET - SURFACE WATER

| | | | | | |
|---|---|--------------------|------|----------------------|----------------|
| Date/Time : 3.3.92/12 Noon | | Location: | | | |
| Sample Source : Kumin Daha (Dead Bangali River) | | VII. - Bangar para | | | |
| Sample Code : R18 | | U.P. - Jumar Bari | | | |
| Sampling Point : North Central | | U.Z. - Saghata | | | |
| Transect No. : 5 | | D. - Gaibandha | | | |
| Sketch | | | | | |
| Main features/ General description of the water body | Circle shaped closed water body. Previously known as Dead Bangali river. Connected with Jamuna during flood. Depth 10' during dry season. | | | | |
| Colour : Turbid Odour : Nil | Purpose of use: Irrigation, Domestic, etc | | | | |
| Water availability: Max. - 20' (July-Aug) Min. - 10' (Feb-Mar) | Max. level recorded in the past 10 yrs. : 45 ft in 1988 | | | | |
| Aquatic vegetations: Water hyacinth | Interconnection with other water bodies: Nil | | | | |
| Effluent discharges into the water body: Nil | Water borne diseases among the villagers: Diarrhea | | | | |
| Pesticides used near the water body: | Type Furadan, Nogos, Busudin etc How long | | | | |
| Use of fertilizer near the water body: | Type Urea, TSP, Zip etc How long | | | | |
| Pollution/Toxicity problem (if any) : | Type - Fish disease Seasonal variation - Sept-Oct (Max) Severity - 50% died Effect on use- | | | | |
| Precaution taken/ villagers solution: | Nil | | | | |
| Previous water quality data (if any) | NDA | | | | |
| Sample Analysis Data | | | | | |
| Temp. °C | 23.3 | Nitrate mg/L | Nil | Zn mg/L | ND |
| pH | 8.0 | Ammonia mg/L | 0.4 | Fe mg/L | 1.2 |
| TS mg/L | 177 | Phosphate mg/L | ND | Cr ⁶ mg/L | Nil |
| TDS mg/L | 65 | Chloride mg/L | 4.0 | As mg/L | Nil |
| DO mg/L | 7.8 | Sulphate mg/L | Nil | Total Coliform | iv/100 ml. 130 |
| BOD mg/L | 5.8 | COD mg/L | 32.0 | | |

TRANSECT DATA SHEET - GROUND WATER

| | | | |
|--|---|-----------------------------|--------------------|
| Date/Time : 3.3.92 / 1-00 PM | | Location: | |
| Sample Source : Tubewell | | Vil. - Bangar Para | |
| Sample Code : R 19 | | U.P. - Jumar Bari | |
| Transect No. : 5 | | U.Z. - Saghata | |
| Tube well owner's name : Public Health Dept. | | Dt. - Gaibandha | |
| Sketch | Same as in Sample Code R 18 | | |
| Main features/ General description of the tube well | Approx. 1200 yds south-east of embankment (river side). Depth 72 ft., Diameter 6 inch. Platform of the tubewell is not concreted. | | |
| Colour : Transparent Odour : Nil | Purpose of use: Drinking & Domestic | | |
| Water table: Previous - } Present - } NDA | Alternate water sources: Kumir Dawha | | |
| Description of tube wells along the transect : (800x800) Yds | Type - Tubewell Depth - 46'-50' No. - 40 | STW 70'-80' 40 | DTW 350' Nil |
| Recharge patterns : Flood Rainfall | Possibility of exploitation in the near future : | | |
| Water borne diseases in the area : | Type - Diarrhea, Dysentery Severity - | | |
| Previous water quality data (if any) : | NDA | | |
| Sample Analysis Data | | | |
| Temp. °C 25.5 | Nitrate mg/L Nil | Zinc mg/L ND | |
| pH mg/L 7.0 | Phosphate mg/L ND | Iron mg/L 2.1 | |
| TS mg/L 290 | Chloride mg/L 38.0 | Chromium mg/L Nil | |
| TDS mg/L 198 | Bromide mg/L ND | Arsenic mg/L Nil | |
| DO mg/L 1.9 | Fluoride mg/L ND | Molybdenum mg/L ND | |
| BOD mg/L 8.5 | Sulphate mg/L 41.5 | COD mg/L 50.0 | |
| Ammonia mg/L 2.0 | Boron mg/L ND | Total coliform n/100 ml. 40 | |

