

# FAP 17

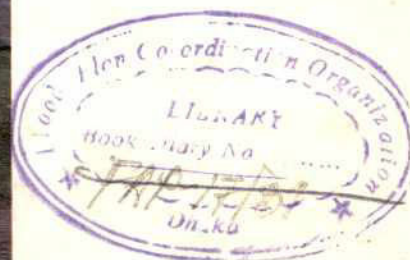
Fisheries Studies  
and  
Pilot Project



## FINAL REPORT

(Draft)

JUNE 1994



### Appendix 1



## FISHERIES DATABASE AND DOCUMENTATION

**ODA**

Overseas Development Administration, U.K.

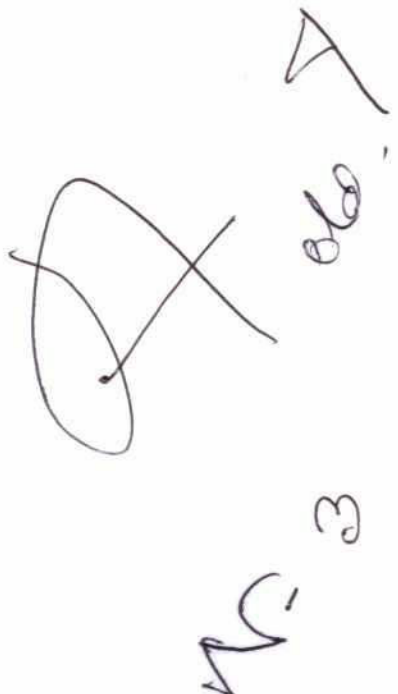
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**FAP 17**  
**FINAL REPORT**

**APPENDIX 1**

**\*\* Draft \*\***

**Fisheries Database  
and  
Documentation**



FAP 17  
FISHERIES STUDIES  
AND PILOT PROJECT

MF 17-9067  
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# FISHERIES STUDY

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# 1 INTRODUCTION

## 1.1 Fisheries Study

### 1.1.1 Fish production surveys

Two surveys were established to estimate fish yield or production: a catch assessment survey (CAS) and a fishing effort survey (FES). The FES and CAS were carried out on the same day to ensure that catch rates were obtained for all gear types counted. Sites were surveyed for two days per month. Certain sites were also surveyed once or twice per month to monitor night fishing. CAS counted and weighed the catch of gears in order to establish catch rates. CAS/CAS10a was used to check gears from the first survey day for which no catch rate was observed so that an attempt could be made to obtain catch rates for them on the second survey day.

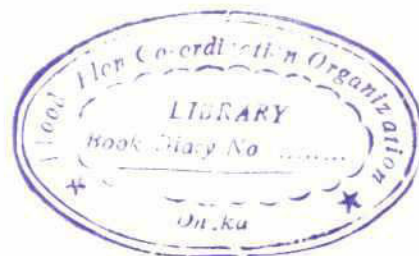
The FES counted the number of fishing gears operating during six two hour periods from 0600 hours to 1800 hours. The main document was FE01 with additional information collected on forms FE02 and FE03. Weather conditions were also observed and recorded while carrying out FES and CAS.

### 1.1.2 Fish population and breeding surveys

In addition to the CAS and FES surveys collection of length frequency data was also established. Selected species identified in the catch were purchased and taken to the regional laboratories for further analysis. Form CAO4 was used to record length and reproductive data. The database established from these surveys is included as a sub-section of the fish production database.

### 1.1.3 Fish movement surveys

Special surveys were established to monitor the drift of hatchlings from rivers to floodplains. Their purpose was to investigate the effects of regulators and embankments on hatchling numbers and densities in order to assess, in both quantitative and qualitative terms, the effects of flood control on recruitment of fish.



#### 1.1.4 Fish feeding surveys

During Catch Assess Surveys fish samples were collected for a selected number of species for further laboratory analysis of stomach or gut contents to determine feeding patterns.

#### 1.1.5 Fish disease surveys

During CAS the fish were examined for signs of Epizootic Ulcerative Syndrome (EUS) and the number and species affected were recorded on form DE01.

#### 1.1.6 Water quality and hydrology surveys

Biologists undertaking fortnightly FES surveys also collected data on flood extent using sketch maps and measuring water depths at predetermined points on the floodplain. Water quality measurements were also taken and recorded on forms SDO1. These were depth, water temperature, pH, conductivity (in  $\mu\text{S}$ ), total dissolved solids (TDS) and oxygen concentration in  $\text{mg l}^{-1}$  and % saturation. Types and % cover by aquatic vegetation were also recorded.

### 1.2 Database Description

#### 1.2.1 Fish production surveys

The raw data files are structured around the content of the field documents from the CA and FE series. The catch assessment team (CAS) measured the catch of each gear by recording the weights and numbers of fish together with supplementary detailed descriptive information such as mesh size and fishing team size. Form CAO1 (also CAO1a and CAO1b) contains the descriptive data and form CAO2 contains the weights and numbers of fish in the catch. Where the catch is very large and subsampling becomes necessary form CAO3 is used. If individual fish are taken back to the laboratory for length frequency or reproduction analysis the data are recorded on form CAO4. The database files CAO1.DBF, CAO1A.DBF, CAO1B.DBF, CAO2.DBF, CAO3\_S2.DBF, CAO3\_S4.DBF and CAO4.DBF contain data from the equivalent named forms. CAO3\_S2 contains actual weight and numbers of large fish in a subsampled catch while CAO3\_S4 contains the weight and numbers of a subsample of



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the remaining catch which was scaled up in the computer to obtain a total species breakdown of the catch.

The CAO1 file is which contains details of every fisherman interviewed. The unique identifier is SITE+DATE+TIME since only one interview can be held at any site at one time by the one team present. Gearcode and interviewer code are not included. Numerous quantitative relationships exist between CAO1 and other CAOn files. Duplication of some data fields, notably gearcode and recorder code, occurs by carrying these data on all raw data files.

Fishing effort was recorded on forms FEO1, FEO2, and FEO3. These data were entered into the raw data files FEO1.DBF, FEO2.DBF and FEO3.DBF. The main river survey which was carried out using a research launch ML otter has a slightly different format reflected in FEO1OTT.DBF. For the effort surveys the unique identifier is SITE+DATE+TIME+JBGR. There are direct relationships between FEO1, FEO2 and FEO3 on the first four fields of the primary key.

Each form was given a unique batch and sheet number. Since documents can be traced by either batch/sheet number or site/location/date/time two separate audit trails exist to find any document. Visual identification of field documents is helped by using different coloured paper for different geographical regions.

Two gear codes and two location codes exist on each file. LOCN and GEARCODE are those taken from the document. Gear codes were revised in March 1993 on the basis of field experience and converted to a new field JBGR which is used for all analysis. GEARCODE provides the audit trail. Similarly JBLOCN is a revised location code created with reference to the file MON\_SCH which contains the completed monthly sampling information at each site. This file is used to calculate site area or length sampled each month (or fortnight) and these are in term used to calculate monthly values of catch per unit areas or length of each site.

All species codes were checked against a FISHCODE.DBF file which contains species local name, scientific name, english name and scientific family code. The family code descriptions are themselves recorded in the file FAMCODE.DBF. Prior to processing of final results an edited species file SPECIES.DBF was created. This file excludes duplicate codes resulting



from preliminary establishment of the species early misidentification of species, and codes used in the hatchling study. Site codes were checked against SITECODE.DBF which, contains descriptive data about each site and location. The file GEARCODE.DBF contains details of valid gear codes.

#### 1.2.2 Fish movement surveys

SA01 form records the times of fishing and numbers of hatchlings for a particular site, location and date. This was later modified into two forms, SA02 and SA04 to gather more detailed information on the fish movement study. The SA02 form and database contains the times of setting of fishing nets and the current speed and depth during fishing for each site, date, netcode, time set and time lifted. For the same identifier the SA04 form and database contains the number of catches for each species.

SS01 forms - SAVAR1 database - on the other hand, contains information on lengths of hatchling fry for each site, locn, netcode, time set and time lifted.

#### 1.2.3 Fish feeding surveys

The fish feeding surveys has only one form and database - FS01. This records information the food items of fish for each site, date and species.

#### 1.2.4 Fish disease surveys

There is only one form in the fish disease surveys - DE01. The database, also DE01, contains details of diseased fish by site, location, date and time. This form is completed during the CAS survey.

#### 1.2.5 Water quality and hydrology surveys

Similar to the CAS and FES, these database files are also structured around the field documents SD01 and SD02. In SD01 file water quality measurements and description of aquatic vegetation is recorded against each site, locn & date. Whereas SD02 contains the prevailing weather condition against each site, locn, date and time.

## 2 CATCH ASSESSMENT SURVEY

### 2.1 List of Databases

01. Form: CAO1 - Catch Assessment Questionnaire - Gears, Fishing Operation and Fishermen.  
CAO1.DBF
02. Form: CAO1A - Catch Assessment Questionnaire (katha)  
CAO1A.DBF
03. Form: CAO1B - Catch Assessment Questionnaire (kua)  
CAO1B.DBF
04. Form: CAO2 - Catch Assessment Survey -Fish Sampling Form  
CAO2.DBF
05. Form: CAO3 - Catch Assessment Survey - Fish Sub-Sampling Form  
CAO3\_S2.DBF (Step 2 - Individual count)  
CAO3\_S4.DBF (Step 4 - Sub sample count)
06. Form: CAO4 - Catch Assessment Survey - Fish Length Frequency Form  
CAO4.DBF
07. Form: KATO1 - Katha Study (Socioeconomic Data)  
KATO1.DBF
08. Form: KATO2 - Katha Study (Katha Catch Form: Secondary Interview Data)  
KATO2.DBF
09. Form: KATO3 - Katha Card - Issued to Katha Owners to Record Catch  
KATO3.DBF
10. Form: KATO5 - Katha Study (Katha Owner/Operation Form)  
KATO5.DBF
11. Form: KATO6 - Katha Study (Individual Katha Owner/Operation Form)  
KATO6.DBF
12. Form: KAT10 - Katha Study (Katha: Monthly Survey Summary)  
KAT10.DBF
13. Form: KUAO1 - Kua Study (Socioeconomic Data)  
KUAO1.DBF

14. Form: KUA02 - Kua Study (Kua Catch Form)  
KUA02.DBF
15. Form: KUA03 - Kua Card - Issued to Kua Owners to Record Catch  
KUA03.DBF
16. Form: KUA05 - Kua Study (Kua Owner/Operation Form)  
KUA05.DBF
17. Form: KUA06 - Kua Study (Individual Kua Owner/Operation Form)  
KUA06.DBF
18. Form: KUA10 - Kua Study (Kua: Monthly Survey Summary)  
KUA10.DBF

## 2.2 Structure of Databases

### 2.2.1 Structure for database: CAO1.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	CAO1ID	Character	8		N
6	RECDR1	Numeric	2		N
7	RECDR2	Numeric	2		N
8	GEARCODE	Numeric	3		N
9	GRS_SS	Numeric	4		N
10	GRS_OC	Numeric	4		N
11	HNS_CTCH	Numeric	3		N
12	HNS_PDAY	Numeric	3		N
13	BAITED	Character	1		N
14	BTD_NO	Numeric	4		N
15	D_LINES	Numeric	4		N
16	HKS_PLN	Numeric	4		N
17	HKS_CTCH	Numeric	4		N
18	HL_SS	Numeric	4		N
19	HKS_USED	Numeric	4		N
20	HL_CTCH	Numeric	4		N
21	GR_MSKO	Character	1		N
22	GN_TMB	Character	1		N
23	GN_FD	Character	1		N
24	OWN_SUO	Character	1		N
25	MESH_SZ	Numeric	3		N
26	SZ_EM	Character	1		N



Field	Field Name	Type	Width	Dec	Index
27	GR_LEN	Numeric	7	2	N
28	GL_UNIT	Character	6		N
29	GL_EM	Character	1		N
30	GR_WIDTH	Numeric	7	2	N
31	GW_UNIT	Character	6		N
32	GW_EM	Character	1		N
33	FGR_LEN	Numeric	7	2	N
34	FGL_UNIT	Character	6		N
35	FGL_EM	Character	1		N
36	FGR_WIDTH	Numeric	7	2	N
37	FGW_UNIT	Character	6		N
38	FGW_EM	Character	1		N
39	FUM5_15	Numeric	2		N
40	FUF5_15	Numeric	2		N
41	FUM16_30	Numeric	2		N
42	FUF16_30	Numeric	2		N
43	FUM_OV30	Numeric	2		N
44	FUF_OV30	Numeric	2		N
45	P_DATE	Date	8		N
46	BEG_FSH	Numeric	5	2	N
47	END_FSH	Numeric	5	2	N
48	CTCH_HRS	Numeric	7	2	N
49	DAYS_PWK	Numeric	1		N
50	DAYS_NWK	Numeric	1		N
51	FSHMONTH	Character	1		N
52	FSH_NHT	Character	1		N
53	NHTS_PWK	Numeric	1		N
54	NHTS_NWK	Numeric	1		N
55	NHT_GEAR	Numeric	3		N
56	END_NFSH	Numeric	5	2	N
57	SELL_ALL	Character	1		N
58	SELL_EAT	Character	1		N
59	EAT_ALL	Character	1		N
60	FMCODE	Numeric	3		N
61	RELIGION	Character	1		N
62	HH_HEAD	Character	1		N
63	LANDAREA	Numeric	8	2	N
64	LANDUNIT	Character	2		N
65	VILLAGE	Numeric	3		N
66	MOUSA	Numeric	5		N
67	OTH_WORK	Character	1		N
68	FARMER	Numeric	1		N
69	AGR_LABR	Numeric	1		N
70	FSH_TRAD	Numeric	1		N
71	STUDENT	Numeric	1		N
72	JOBHOLDR	Numeric	1		N

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Field	Field Name	Type	Width	Dec	Index
73	OTH_TRAD	Numeric	1		N
74	DAYNIGHT	Character	1		N
75	RANK_FM	Numeric	1		N
76	RANK_FS	Numeric	1		N
77	RANK_LB	Numeric	1		N
78	RANK_TR	Numeric	1		N
79	RANK_OT	Numeric	1		N
80	JBGR	Numeric	3		N
81	MISSING	Numeric	2		N
82	CAO2_FRM	Character	1		N
83	CAO3_FRM	Character	1		N
84	CAO4_FRM	Character	1		N
85	CAO2	Numeric	3		N
86	CAO3_S2	Numeric	3		N
87	CAO3_S4	Numeric	3		N
88	CAO4	Numeric	3		N
89	CAO3	Numeric	3		N
90	GEARNAME	Character	20		N
91	SHEET	Character	8		N
92	BATCH	Character	6		N
93	DEMO1	Character	1		N
94	DEMO2	Character	2		N
95	DEMO3	Character	3		N
96	OLD_RECNO	Numeric	5		N
97	UNIK_ID	Character	8		N
<b>** Total **</b>			<b>307</b>		

### 2.2.2 Structure for database: CAO1A.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	KATHAID	Character	8		N
6	RECDR1	Numeric	2		N
7	RECDR2	Numeric	2		N
8	GEARCODE	Numeric	3		N
9	GRS_SS	Numeric	4		N
10	GRS_OC	Numeric	4		N
11	LEN_KA	Numeric	7	2	N
12	WID_KA	Numeric	7	2	N
13	BAMBOO	Character	1		N
14	BUSH	Character	1		N
15	W_HYCINTH	Numeric	3		N

Field	Field Name	Type	Width	Dec	Index
16	DEPTH	Numeric	5	2	N
17	SGR	Numeric	3		N
18	SGR_NAME	Character	15		N
19	SGR_LEN	Numeric	6	1	N
20	SGR_WID	Numeric	5	1	N
21	MESH_SZ	Numeric	5	1	N
22	NET_MAT	Character	1		N
23	CGR1	Numeric	3		N
24	CGR1_NO	Numeric	2		N
25	CGR2	Numeric	3		N
26	CGR2_NO	Numeric	2		N
27	CGR3	Numeric	3		N
28	CGR3_NO	Numeric	2		N
29	FUM5_15	Numeric	2		N
30	FUF5_15	Numeric	2		N
31	FUM16_30	Numeric	2		N
32	FUF16_30	Numeric	2		N
33	FUM_OV30	Numeric	2		N
34	FUF_OV30	Numeric	2		N
35	BOATS	Numeric	2		N
36	TOT_PAT	Character	1		N
37	KA_SL	Character	8		N
38	DURATION	Numeric	5	2	N
39	CON_DATE	Date	8		N
40	EMT_DATE	Date	8		N
41	NEXT_EMT	Date	8		N
42	COMP_FSHD	Character	1		N
43	FRQ_EMT	Numeric	2		N
44	FMCODE	Numeric	3		N
45	HH_HEAD	Character	1		N
46	RELIGION	Character	1		N
47	LANDAREA	Numeric	8	2	N
48	LANDUNIT	Character	2		N
49	VILLAGE	Numeric	3		N
50	MOUSA	Numeric	5		N
51	LEAS_DTL	Character	50		N
52	LDTL_N	Numeric	1		N
53	FISH_MKT	Character	50		N
54	SL_C	Numeric	1		N
55	SHC_OWN	Numeric	3		N
56	SHC_FT	Numeric	3		N
57	SHC_OTH	Numeric	3		N
58	RANK_FM	Numeric	1		N
59	RANK_FS	Numeric	1		N
60	RANK_LB	Numeric	1		N
61	RANK_TR	Numeric	1		N



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Field	Field Name	Type	Width	Dec	Index
62	RANK_OT	Numeric	1		N
63	MISSING	Numeric	2		N
64	JBGR	Numeric	3		N
65	GEARNAME	Character	20		N
66	SHEET	Character	8		N
67	BATCH	Character	6		N
68	DEMO1	Character	1		N
69	DEMO2	Character	1		N
<b>** Total **</b>			<b>351</b>		

### 2.2.3 Structure for database: CAO1B.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	KUAID	Character	8		N
6	RECDR1	Numeric	2		N
7	RECDR2	Numeric	2		N
8	GEARCODE	Numeric	3		N
9	GRS_SS	Numeric	4		N
10	GRS_OC	Numeric	4		N
11	LEN_KU	Numeric	7	2	N
12	WID_KU	Numeric	7	2	N
13	BAMBOO	Character	1		N
14	BUSH	Character	1		N
15	W_HYCNTH	Numeric	3		N
16	DEPTH	Numeric	5	2	N
17	CGR1	Numeric	3		N
18	CGR1_NO	Numeric	2		N
19	CGR2	Numeric	3		N
20	CGR2_NO	Numeric	2		N
21	CGR3	Numeric	3		N
22	CGR3_NO	Numeric	2		N
23	FUM5_15	Numeric	2		N
24	FUF5_15	Numeric	2		N
25	FUM16_30	Numeric	2		N
26	FUF16_30	Numeric	2		N
27	FUM_OV30	Numeric	2		N
28	FUF_OV30	Numeric	2		N
29	TOT_PAT	Character	1		N
30	KU_SL	Character	8		N
31	EMT_DATE	Date	8		N
32	NEXT_EMT	Date	8		N

Field	Field Name	Type	Width	Dec	Index
33	COMP_FSHD	Character	1		N
34	FRQ_EMT	Numeric	2		N
35	FMCODE	Numeric	3		N
36	HH_HEAD	Character	1		N
37	RELIGION	Character	1		N
38	LANDAREA	Numeric	8	2	N
39	LANDUNIT	Character	2		N
40	VILLAGE	Numeric	3		N
41	MOUSA	Numeric	5		N
42	LEAS_DTL	Character	60		N
43	LDTL_N	Numeric	1		N
44	FISH_MKT	Character	60		N
45	SL_C	Numeric	1		N
46	OTHER	Character	60		N
47	SHC_OWN	Numeric	3		N
48	SHC_FT	Numeric	3		N
49	SHC_OTH	Numeric	3		N
50	RANK_FM	Numeric	1		N
51	RANK_FS	Numeric	1		N
52	RANK_LB	Numeric	1		N
53	RANK_TR	Numeric	1		N
54	RANK_OT	Numeric	1		N
55	MISSING	Numeric	2		N
56	JBGR	Numeric	3		N
57	GEARNAME	Character	20		N
58	SHEET	Character	8		N
59	BATCH	Character	6		N
60	DEMO1	Character	1		N
61	DEMO2	Character	1		N
<b>** Total **</b>			<b>381</b>		

#### 2.2.4 Structure for database: CAO2.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	CAO1ID	Character	8		N
6	CAO2ID	Numeric	3		N
7	RECDR1	Numeric	2		N
8	RECDR2	Numeric	2		N
9	GEARCODE	Numeric	3		N
10	LFA	Character	1		N
11	REPRO	Character	1		N

21

Field	Field Name	Type	Width	Dec	Index
12	SPCODE	Numeric	3		N
13	WEIGHT	Numeric	6		N
14	NUMBER	Numeric	6		N
15	CTCHTYPE	Character	2		N
16	JBGR	Numeric	3		N
17	MISSING	Numeric	2		N
18	SHEET	Character	8		N
19	BATCH	Character	6		N
20	BATCHNO	Numeric	4		N
21	SHEETNO	Numeric	5		N
22	DEMO1	Character	1		N
23	DEMO2	Character	1		N
24	DEMO3	Character	1		N
<b>** Total **</b>			<b>87</b>		

#### 2.2.5 Structure for database: CAO3\_S2.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	CAO1ID	Character	8		N
6	S2ID	Numeric	3		N
7	RECDR1	Numeric	2		N
8	RECDR2	Numeric	2		N
9	GEARCODE	Numeric	3		N
10	TOTCTCH	Numeric	8	3	N
11	LFA	Character	1		N
12	REPRO	Character	1		N
13	SPCODE	Numeric	3		N
14	SPNAME	Character	25		N
15	WT_INDV	Numeric	7		N
16	NOS_INDV	Numeric	4		N
17	CTCHTYPE	Character	2		N
18	JBGR	Numeric	3		N
19	MISSING	Numeric	2		N
20	SHEET	Character	8		N
21	BATCH	Character	6		N
22	DEMO1	Character	1		N
<b>** Total **</b>			<b>108</b>		



### 2.2.6 Structure for database: CAO3\_S4.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	CAO1ID	Character	8		N
6	S4ID	Numeric	3		N
7	RECDR1	Numeric	2		N
8	RECDR2	Numeric	2		N
9	GEARCODE	Numeric	3		N
10	TOTCTCH	Numeric	8	3	N
11	LFA	Character	1		N
12	REPRO	Character	1		N
13	SPCODE	Numeric	3		N
14	SPNAME	Character	25		N
15	WT_SUBS	Numeric	6		N
16	NOS_SUBS	Numeric	5		N
17	CTCHTYPE	Character	2		N
18	JBGR	Numeric	3		N
19	MISSING	Numeric	2		N
20	SHEET	Character	8		N
21	BATCH	Character	6		N
22	DEMO1	Character	1		N
<b>** Total **</b>			<b>108</b>		

### 2.2.7 Structure for database: CAO4.DBF


Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	RECDR1	Numeric	2		N
6	RECDR2	Numeric	2		N
7	GEARCODE	Numeric	3		N
8	CAO1ID	Character	8		N
9	CAO4ID	Numeric	4		N
10	SUB_SMPL	Character	1		N
11	LEN_MS RD	Character	1		N
12	TOTNOS	Numeric	5		N
13	SPCODE	Numeric	3		N
14	TL_GOOD	Character	1		N
15	TOT_LEN	Numeric	7	2	N
16	SL_GOOD	Character	1		N

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Field	Field Name	Type	Width	Dec	Index
17	STD_LEN	Numeric	7		2 N
18	STG_RPRO	Character	2		N
19	JBGR	Numeric	3		N
20	MISSING	Numeric	2		N
21	CTCHTYPE	Character	2		N
22	SHEET	Character	8		N
23	BATCH	Character	6		N
<b>** Total **</b>			<b>87</b>		

#### 2.2.8 Structure for database: KAT01.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	SDATE	Date	8		N
3	RECDR	Character	2		N
4	KA_SL	Character	8		N
5	KAT_OWNER	Character	1		N
6	SUB_LEASE	Character	1		N
7	HIRED_FSH	Character	1		N
8	OTHERS	Character	10		N
9	NAME	Character	35		N
10	O_CODE	Character	7		N
11	RELIGION	Character	2		N
12	VILL	Character	18		N
13	HH_HEAD	Character	1		N
14	OWN_LAND	Numeric	7	2	N
15	LAND_UNIT	Character	2		N
16	RANK_FH	Numeric	1		N
17	RANK_FM	Numeric	1		N
18	RANK_LB	Numeric	1		N
19	RANK_TR	Numeric	1		N
20	RANK_OT	Numeric	1		N
21	LEASE_SYS	Numeric	1		N
22	TOT_KAT	Numeric	3		N
23	FRQ_EMT	Numeric	2		N
24	SHC_KOWN	Numeric	6	2	N
25	SHC_FTEAM	Numeric	6	2	N
26	SHC_OTHERS	Numeric	6	2	N
27	SLC_A	Numeric	1		N
28	SLC_B	Numeric	1		N
29	SLC_C	Numeric	1		N
30	SLC_D	Numeric	1		N
31	SLC_E	Numeric	1		N



Field	Field Name	Type	Width	Dec	Index
32	SHEET	Character	8		N
33	BATCH	Character	6		N
<b>** Total **</b>			<b>156</b>		

#### 2.2.9 Structure for database: KAT02.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	MONTH	Character	3		N
3	YEAR	Numeric	2		N
4	SDATE	Date	8		N
5	RECDR	Character	2		N
6	KAT02_SL	Character	8		N
7	KAT_LEN	Numeric	7	2	N
8	KLEN_UNIT	Character	2		N
9	KAT_WID	Numeric	7	2	N
10	KWID_UNIT	Character	2		N
11	KA_CODE	Character	7		N
12	LOCN	Character	3		N
13	FRQ_EMT	Numeric	2		N
14	FWK_CATCH	Numeric	6	2	N
15	FWKC_UNIT	Character	2		N
16	FWK_VALUE	Numeric	8	2	N
17	SWK_CATCH	Numeric	6	2	N
18	SWKC_UNIT	Character	2		N
19	SWK_VALUE	Numeric	8	2	N
20	TWK_CATCH	Numeric	6	2	N
21	TWKC_UNIT	Character	2		N
22	TWK_VALUE	Numeric	8	2	N
23	FRWK_CATCH	Numeric	6	2	N
24	FRWKC_UNIT	Character	2		N
25	FRWK_VALUE	Numeric	8	2	N
26	SHEET	Character	8		N
27	BATCH	Character	6		N
<b>** Total **</b>			<b>136</b>		

#### 2.2.10 Structure for database: KAT03.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	3		N
3	XLOCN	Character	3		N
4	MONTH	Character	3		N
5	KAT03_SL	Character	8		N



Field	Field Name	Type	Width	Dec	Index
6	NAME_OWN	Character	35		N
7	SHORT_NAME	Character	15		N
8	FAP17_CODE	Character	8		N
9	VILL	Character	20		N
10	SDATE	Date	8		N
11	KAT_NAME	Character	15		N
12	WEIGHT	Numeric	7	2	N
13	VALUE	Numeric	8	2	N
14	FB_DATE	Date	8		N
15	OWN_DATE	Date	8		N
16	COLL_DATE	Date	8		N
17	CHK_CODE	Character	4		N
18	CHK_DATE	Date	8		N
19	SHEET	Character	8		N
20	BATCH	Character	6		N
<b>** Total **</b>			<b>188</b>		

#### 2.2.11 Structure for database: KAT05.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	3		N
3	XLOCN	Character	3		N
4	SDATE	Date	8		N
5	STIME	Numeric	5	2	N
6	RECRD1	Character	2		N
7	RECDR2	Character	2		N
8	OWN_CODE	Character	4		N
9	OWN_NAME	Character	25		N
10	VILL	Character	20		N
11	NO_KAT	Numeric	4		N
12	NO_LEASE	Numeric	4		N
13	NO_HIRED	Numeric	4		N
14	SHHET	Character	8		N
15	BATCH	Character	6		N
<b>** Total **</b>			<b>103</b>		

#### 2.2.12 Structure for database: KAT06.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	3		N
3	XLOCN	Character	3		N
4	SDATE	Date	8		N

Field	Field Name	Type	Width	Dec	Index
5	STIME	Numeric	5	2	N
6	RECDR1	Character	2		N
7	RECDR2	Character	2		N
8	OWN_NAME	Character	25		N
9	COMM_NAME	Character	15		N
10	VILL	Character	20		N
11	FAP17_CODE	Character	8		N
12	OWNER	Character	1		N
13	LS_HOLD	Character	1		N
14	OTHER	Character	1		N
15	KAT_CODE	Character	7		N
16	LOC_NAME	Character	35		N
17	LENGTH	Numeric	7	2	N
18	LEN_EM	Character	1		N
19	LEN_UNIT	Character	1		N
20	WIDTH	Numeric	7	2	N
21	WID_EM	Character	1		N
22	WID_UNIT	Character	1		N
23	AREA	Numeric	8	2	N
24	AREA_EM	Character	1		N
25	AREA_UNIT	Character	1		N
26	CON_DATE	Date	8		N
27	FSH_DATE	Date	8		N
28	COMMENTS	Character	40		N
29	SHEET	Character	8		N
30	BATCH	Character	6		N
<b>** Total **</b>			<b>239</b>		

### 2.2.13 Structure for database: KAT10.DBF

Field	Field Name	Type	Width	Dec	Index
1	REGION	Character	2		N
2	SITE	Character	4		N
3	MONTH	Character	3		N
4	YEAR	Character	4		N
5	OWN_NAME	Character	35		N
6	CODE	Character	7		N
7	KAT_SITE	Numeric	4		N
8	KAT_FSD	Character	4		N
9	KAT_CAS	Numeric	4		N
10	CARDS	Character	1		N
11	INT_DATA	Character	1		N
12	BKGND	Character	15		N
13	SOCIO	Character	15		N
14	CATCH	Character	15		N

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Field	Field Name	Type	Width	Dec	Index
15	SHEET	Character	8		N
16	BATCH	Character	6		N
<b>** Total **</b>			<b>129</b>		

2.2.14 Structure for database: KUA01.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	SDATE	Date	8		N
3	RECDR	Character	2		N
4	KU_SL	Character	8		N
5	KUA_OWNER	Character	1		N
6	SUB_LEASE	Character	1		N
7	HIRED_FSH	Character	1		N
8	OTHERS	Character	10		N
9	NAME	Character	35		N
10	CODE	Character	7		N
11	RELIGION	Character	2		N
12	VILL	Character	12		N
13	HH_HEAD	Character	1		N
14	OWN_LAND	Numeric	7	2	N
15	LAND_UNIT	Character	5		N
16	RANK_FH	Numeric	1		N
17	RANK_FM	Numeric	1		N
18	RANK_LB	Numeric	1		N
19	RANK_TR	Numeric	1		N
20	RANK_OT	Numeric	1		N
21	LEASE_SYS	Numeric	1		N
22	TOT_KUA	Numeric	4		N
23	FRQ_EMT	Numeric	2		N
24	SHC_KOWN	Numeric	6	2	N
25	SHC_FTEAM	Numeric	6	2	N
26	SHC_OTHERS	Numeric	6	2	N
27	SLC_A	Numeric	1		N
28	SLC_B	Numeric	1		N
29	SLC_C	Numeric	1		N
30	SLC_D	Numeric	1		N
31	SLC_E	Numeric	1		N
32	SHEET	Character	8		N
33	BATCH	Character	6		N
<b>** Total **</b>			<b>154</b>		



## 2.2.15 Structure for database: KUA02.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	MONTH	Character	3		N
3	YEAR	Numeric	2		N
4	SDATE	Date	8		N
5	RECDR	Character	2		N
6	KUA02_SL	Character	8		N
7	KUA_LEN	Numeric	7	2	N
8	KLEN_UNIT	Character	2		N
9	KUA_WID	Numeric	7	2	N
10	KWID_UNIT	Character	2		N
11	CODE	Character	8		N
12	LOCN	Character	3		N
13	FRQ_EMT	Numeric	2		N
14	FWK_CATCH	Numeric	7	2	N
15	FWKC_UNIT	Character	2		N
16	FWK_VALUE	Numeric	7	2	N
17	SWK_CATCH	Numeric	7	2	N
18	SWKC_UNIT	Character	2		N
19	SWK_VALUE	Numeric	7	2	N
20	TWK_CATCH	Numeric	7	2	N
21	TWKC_UNIT	Character	2		N
22	TWK_VALUE	Numeric	8	2	N
23	FRWK_CATCH	Numeric	7	2	N
24	FRWKC_UNIT	Character	2		N
25	FRWK_VALUE	Numeric	7	2	N
26	SHEET	Character	8		N
27	BATCH	Character	6		N
<b>** Total **</b>			<b>138</b>		

## 2.2.16 Structure for database: KUA03.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	3		N
3	XLOCN	Character	3		N
4	MONTH	Character	3		N
5	KUA03_SL	Character	6		N
6	NAME_OWN	Character	35		N
7	SHORT_NAME	Character	15		N
8	FAP17_CODE	Character	8		N
9	VILL	Character	20		N
10	SDATE	Date	8		N
11	KUA_NAME	Character	15		N

Field	Field Name	Type	Width	Dec	Index
12	WEIGHT	Numeric	6	2	N
13	VALUE	Numeric	8	2	N
14	FB_DATE	Date	8		N
15	OWN_DATE	Date	8		N
16	COLL_DATE	Date	8		N
17	CHK_CODE	Character	4		N
18	CHK_DATE	Date	8		N
19	SHEET	Character	8		N
20	BATCH	Character	6		N
<b>** Total **</b>			<b>185</b>		

2.2.17 Structure for database: KUA05.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	3		N
3	XLOCN	Character	3		N
4	SDATE	Date	8		N
5	STIME	Numeric	5	2	N
6	RECRD1	Character	2		N
7	RECDR2	Character	2		N
8	OWN_CODE	Character	4		N
9	OWN_NAME	Character	25		N
10	VILL	Character	20		N
11	NO_KUA	Numeric	4		N
12	NO_LEASE	Numeric	4		N
13	NO_HIRED	Numeric	4		N
14	SHHET	Character	8		N
15	BATCH	Character	6		N
<b>** Total **</b>			<b>103</b>		

2.2.17 Structure for database: KUA06.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	3		N
3	XLOCN	Character	3		N
4	SDATE	Date	8		N
5	STIME	Numeric	5	2	N
6	RECDR1	Character	2		N
7	RECDR2	Character	2		N
8	OWN_NAME	Character	25		N
9	COMM_NAME	Character	15		N
10	VILL	Character	20		N

Field	Field Name	Type	Width	Dec	Index
11	FAP17_CODE	Character	8		N
12	OWNER	Character	1		N
13	LS_HOLD	Character	1		N
14	OTHER	Character	1		N
15	KUA_CODE	Character	7		N
16	LOC_NAME	Character	35		N
17	LENGTH	Numeric	6	2	N
18	LEN_EM	Character	1		N
19	LEN_UNIT	Character	1		N
20	WIDTH	Numeric	6	2	N
21	WID_EM	Character	1		N
22	WID_UNIT	Character	1		N
23	AREA	Numeric	7	2	N
24	AREA_EM	Character	1		N
25	AREA_UNIT	Character	1		N
26	CON_DATE	Date	8		N
27	FSH_DATE	Date	8		N
28	COMMENTS	Character	40		N
29	SHHET	Character	8		N
30	BATCH	Character	6		N
<b>** Total **</b>			<b>236</b>		

#### 2.2.19 Structure for database: KUA10.DBF

Field	Field Name	Type	Width	Dec	Index
1	REGION	Character	2		N
2	SITE	Character	4		N
3	LOCN	Character	1		N
4	XLOCN	Character	3		N
5	MONTH	Character	3		N
6	YEAR	Character	4		N
7	YM	Character	6		N
8	OWN_NAME	Character	35		N
9	CODE	Character	8		N
10	KUA_SITE	Numeric	4		N
11	KUA_FSHD	Numeric	4		N
12	KUA_CAS	Numeric	4		N
13	CARDS	Character	1		N
14	INT_DATA	Character	1		N
15	BKGND	Character	15		N
16	SOCIO	Character	15		N
17	CATCH	Character	15		N
18	SHEET	Character	8		N
19	BATCH	Character	6		N
<b>** Total **</b>			<b>140</b>		



### 2.3 Description of Database Fields

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
CAO1	1	SITE	C	4	0	Site code
CAO1	2	LOCN	C	1	0	Location code A....E
CAO1	3	SDATE	D	8	0	Survey date
CAO1	4	STIME	N	5	2	Survey time
CAO1	5	CAOIID	C	8	0	Used for batch control
CAO1	6	RECDR1	N	2	0	1st Recorder code
CAO1	7	RECDR2	N	2	0	2nd Recorder code
CAO1	8	GEARCODE	N	3	0	Gearcode
CAO1	9	GRS_SS	N	4	0	No.of Gear in sampling site
CAO1	10	GRS_OC	N	4	0	No.of gears caught observed catch
CAO1	11	HNS_CTCH	N	3	0	No.of hauls for the catch
CAO1	12	HNS_PDAY	N	3	0	No.of hauls for today
CAO1	13	BAITED	C	1	0	Baited? Y/N
CAO1	14	BTD_NO	N	4	0	Baited numbers
CAO1	15	D_LINES	N	4	0	No.of lines set for Daun
CAO1	16	HKS_PLN	N	4	0	Hooks per line
CAO1	17	HKS_CTCH	N	4	0	Hooks which caught this catch
CAO1	18	HL_SS	N	4	0	No.of hook/lines in samp. site
CAO1	19	HKS_USED	N	4	0	No.of hooks used
CAO1	20	HL_CTCH	N	4	0	No.of hook/lines caught fish
CAO1	21	GR_MSKO	C	1	0	Codes for material used
CAO1	22	GN_TMB	C	1	0	Codes for gill net setting
CAO1	23	GN_FD	C	1	0	Codes for setting fixed/drift
CAO1	24	OWN_SUO	C	1	0	Ownership codes
CAO1	25	MESH_SZ	N	3	0	Mesh size

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
CAO1	26	SZ_EM	C	1	0	Mesh size estimated/measured
CAO1	27	GR_LEN	N	7	2	Gear length
CAO1	28	GL_UNIT	C	6	0	Unit of measurement for length
CAO1	29	GL_EM	C	1	0	Gear length estimated/measured.
CAO1	30	GR_WIDTH	N	7	2	Gear width
CAO1	31	GW_UNIT	C	6	0	Unit for width
CAO1	32	GW_EM	C	1	0	Gear width estimated/measured.
CAO1	33	FGR_LEN	N	7	2	Fisherman gear length
CAO1	34	FGL_UNIT	C	6	0	Unit for length
CAO1	35	FGL_EM	C	1	0	Gear length estimated/measured
CAO1	36	FGR_WIDTH	N	7	2	Fisherman gear width
CAO1	37	FGW_UNIT	C	6	0	Unit for width
CAO1	38	FGW_EM	C	1	0	Width estimated/measured
CAO1	39	FUM5_15	N	2	0	No.of males in age group 5-15
CAO1	40	FUF5_15	N	2	0	No.of females in age gr. 5-15
CAO1	41	FUM16_30	N	2	0	No.of males in age gr. 16-30
CAO1	42	FUF16_30	N	2	0	No.of females in age gr. 16-30
CAO1	43	FUM_OV30	N	2	0	No.of males in age over 30 year
CAO1	44	FUF_OV30	N	2	0	No.of females in age over 30
CAO1	45	P_DATE	D	8	0	Date before survey date
CAO1	46	BEG_FSH	N	5	2	Start time for fishing
CAO1	47	END_FSH	N	5	2	End time for fishing
CAO1	48	CTCH_HRS	N	7	2	Catch hrs 5 hr & 42 m as 5.42
CAO1	49	DAYS_PWK	N	1	0	No.of fishing days last week
CAO1	50	DAYS_NWK	N	1	0	No.of fishing days next week
CAO1	51	FSHMONTH	C	1	0	Fishing every month? Y/N

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
CAO1	52	FSH_NHT	C	1	0	Fishing at night ? Y/N
CAO1	53	NHTS_PWK	N	1	0	No.of nights last week ?
CAO1	54	NHTS_NWK	N	1	0	No.of nights next week ?
CAO1	55	NHT_GEAR	N	3	0	What night gear used ?
CAO1	56	END_NFSH	N	5	2	Finishing time for night-fishing
CAO1	57	SELL_ALL	C	1	0	Sell all fish ? Y/N
CAO1	58	SELL_EAT	C	1	0	Sell half/eat half/ Y/N
CAO1	59	EAT_ALL	C	1	0	Eat all ? Y/N
CAO1	60	FMCODE	N	3	0	Fisherman code
CAO1	61	RELIGION	C	1	0	Religion codes
CAO1	62	HH_HEAD	C	1	0	Whether household head ? Y/N
CAO1	63	LANDAREA	N	8	2	Area of land owned
CAO1	64	LANDUNIT	C	2	0	Unit for area measured
CAO1	65	VILLAGE	N	3	0	Village code
CAO1	66	MOUSA	N	5	0	Mouza code
CAO1	67	OTH_WORK	C	1	0	Have any other profession ? Y/N
CAO1	68	FARMER	N	1	0	Farmer when reply is 1
CAO1	69	AGR_LABR	N	1	0	Agri-labour when reply is 1
CAO1	70	FSH_TRAD	N	1	0	Traders when reply is 1
CAO1	71	STUDENT	N	1	0	Student when reply is 1
CAO1	72	JOBHOLDR	N	1	0	Jobholder when reply is 1
CAO1	73	OTH_TRAD	N	1	0	Other traders when reply is 1
CAO1	74	DAYNIGHT	C	1	0	Day/Night catch ? Y/N
CAO1	75	RANK_FM	N	1	0	Rank for farmer
CAO1	76	RANK_FS	N	1	0	for fisherman
CAO1	77	RANK_LB	N	1	0	for labourer



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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
CAO1	78	RANK_TR	N	1	0	for traders
CAO1	79	RANK_OT	N	1	0	for other traders
CAO1	80	JBGR	N	3	0	Modified Gearcode
CAO1	81	MISSING	N	2	0	Codes when field values missed
CAO1	82	CAO2_FRM	C	1	0	When Y, CAO2 exists
CAO1	83	CAO3_FRM	C	1	0	When Y, CAO3 exists
CAO1	84	CAO4_FRM	C	1	0	When Y, CAO4 exists
CAO1	85	CAO2	N	3	0	No.of records in CAO2 form
CAO1	86	CAO3_S2	N	3	0	No.of records in CAO3_S2 form
CAO1	87	CAO3_S4	N	3	0	No.of records in CAO3_S4 form
CAO1	88	CAO4	N	3	0	No.of records in CAO4 form
CAO1	89	CAO3	N	3	0	No.of records in CAO4 form
CAO1	90	GEARNAME	C	20	0	Gearname
CAO1	91	SHEET	C	8	0	Used for batch control
CAO1	92	BATCH	C	6	0	Used for batch control
CAO1	93	DEMO1	C	1	0	Used for batch control
CAO1	94	DEMO2	C	2	0	Used for batch control
CAO1	95	DEMO3	C	3	0	Used for batch control
CAO1	96	OLD_REC_N	N	5	0	Used for batch control
CAO1	97	UNIK_ID	C	8	0	Used for batch control
CAO1A	1	SITE	C	4	0	Site code
CAO1A	2	LOCN	C	1	0	Location code
CAO1A	3	SDATE	D	8	0	Survey date
CAO1A	4	STIME	N	5	2	Survey time
CAO1A	5	KATHAID	C	8	0	Used for batch control

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
CA01A	6	RECDR1	N	2	0	1st Recorder code
CA01A	7	RECDR2	N	2	0	2nd Recorder code
CA01A	8	GEARCODE	N	3	0	Gearcode
CA01A	9	GRS_SS	N	4	0	No.of katha in sampling site
CA01A	10	GRS_OC	N	4	0	No.of gear caught observed catch
CA01A	11	LEN_KA	N	7	2	Length of katha (m)
CA01A	12	WID_KA	N	7	2	Width of katha (m)
CA01A	13	BAMBOO	C	1	0	Material used: bamboo ? Y/N
CA01A	14	BUSH	C	1	0	Material used: bush ? Y/N
CA01A	15	W_HYCNTH	N	3	0	Material used: hyacinth ? Y/N
CA01A	16	DEPTH	N	5	2	Depth of katha (m)
CA01A	17	SGR	N	3	0	Gear used to surround katha: code
CA01A	18	SGR_NAME	C	15	0	Name of gear
CA01A	19	SGR_LEN	N	5	1	Length of gear
CA01A	20	SGR_WID	N	5	1	Width of gear
CA01A	21	MESH_SZ	N	3	0	Mesh size
CA01A	22	NET_MAT	C	1	0	Net material code
CA01A	23	CGR1	N	3	0	1st Gear used to catch fish
CA01A	24	CGR1_NO	N	2	0	No.of 1st gears used
CA01A	25	CGR2	N	3	0	2nd gear used to catch fish
CA01A	26	CGR2_NO	N	2	0	No.of 2nd gear used
CA01A	27	CGR3	N	3	0	3rd gear used to catch fish
CA01A	28	CGR3_NO	N	2	0	No.of 3rd gear used
CA01A	29	FUM5_15	N	2	0	No.of males in age gr 5_15
CA01A	30	FUF5_15	N	2	0	No.of females in age gr 5_15
CA01A	31	FUM16_30	N	2	0	No.of males in age gr 16_30

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
CAO1A	32	FUF16_30	N	2	0	No.of females in age gr 16_30
CAO1A	33	FUM_OV30	N	2	0	No.of males in age over 30
CAO1A	34	FUF_OV30	N	2	0	No.of females in age over 30
CAO1A	35	BOATS	N	2	0	No.of boats used
CAO1A	36	TOT_PAT	C	1	0	Total or Partial catch? T/P
CAO1A	37	KA_SL	C	8	0	Serial for 1st day of fishing
CAO1A	38	DURATION	N	2	0	Duration in days to catch fish
CAO1A	39	CON_DATE	D	8	0	Date of construction
CAO1A	40	EMT_DATE	D	8	0	Date of emptied
CAO1A	41	NEXT_EMT	D	8	0	Date of next emptied
CAO1A	42	FRQ_EMT	N	2	0	Frequency of emptying
CAO1A	43	FMCODE	N	3	0	Fisherman code
CAO1A	44	HH_HEAD	C	1	0	Household head code
CAO1A	45	RELIGION	C	1	0	Religion code
CAO1A	46	LANDAREA	N	8	2	Area of land
CAO1A	47	LANDUNIT	C	2	0	Unit of measurement
CAO1A	48	VILLAGE	N	3	0	Village code
CAO1A	49	MOUSA	N	5	0	Mouza code
CAO1A	50	LEAS_DTL	C	200	0	Leasing details
CAO1A	51	FISH_MKT	C	200	0	Marketing detail
CAO1A	52	RANK_MF	N	1	0	Ranks for farmer
CAO1A	53	RANK_FS	N	1	0	for fisherman
CAO1A	54	RANK_LB	N	1	0	for labour
CAO1A	55	RANK_TR	N	1	0	for traders
CAO1A	56	RANK_OT	N	1	0	for other traders
CAO1A	57	JBGR	N	3	0	Modified gearcodes

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
CAO1A	58	MISSING	N	2	0	No.of fields (value missing)
CAO1A	59	GEARNAME	C	0	0	Gearname
CAO1A	60	SHEET	C	8	0	Used for batch control
CAO1A	61	BATCH	C	6	0	Used for Batch control
CAO1A	62	DEMO1	C	1	0	Used for batch control
CAO1A	63	DEMO2	C	1	0	Used for batch control
CAO1B	1	SITE	C	4	0	Site code
CAO1B	2	LOCN	C	1	0	Location code
CAO1B	3	SDATE	D	8	0	Survey date
CAO1B	4	STIME	N	5	2	Survey time
CAO1B	5	KUAID	C	8	0	Used for record control
CAO1B	6	RECDR1	N	2	0	1st Recorder code
CAO1B	7	RECDR2	N	2	0	2nd Recorder code
CAO1B	8	GEARCODE	N	3	0	Gearcode
CAO1B	9	GRS_SS	N	4	0	No.of kua in sampling site
CAO1B	10	GRS_OC	N	4	0	No.of gear caught observed catch
CAO1B	11	LEN_KU	N	7	2	Length of kua (m)
CAO1B	12	WID_KU	N	7	2	Width of kua (m)
CAO1B	13	BAMBOO	C	1	0	Material used: bamboo ? Y/N
CAO1B	14	BUSH	C	1	0	Material used: bush ? Y/N
CAO1B	15	W_HYCNTH	N	3	0	Material used: hyacinth ? Y/N
CAO1B	16	DEPTH	N	5	2	Depth of Kua (m)
CAO1B	17	CGR1	N	3	0	1st gear used to catch fish
CAO1B	18	CGR1_NO	N	2	0	No.of 1st gears used
CAO1B	19	CGR2	N	3	0	2nd gear used to catch fish
CAO1B	20	CGR2_NO	N	2	0	No.of 2nd gears used



<u>File</u> <u>Name</u>	<u>Field</u> <u>No.</u>	<u>Fields</u>	<u>Field</u> <u>Type</u>	<u>Width</u>	<u>Deci-</u> <u>mals</u>	<u>Description</u>
CAO1B	21	CGR3	N	3	0	3rd gear used to catch fish
CAO1B	22	CGR3_NO	N	2	0	No.of 3rd gears used
CAO1B	23	FUM5_15	N	2	0	No.of males in age gr 5_15
CAO1B	24	FUF5_15	N	2	0	No.of females in age gr 5_15
CAO1B	25	FUM16_30	N	2	0	No.of males in age gr 16_30
CAO1B	26	FUF16_30	N	2	0	No.of females in age gr 16_30
CAO1B	27	FUM_OV30	N	2	0	No.of males in age gr over 30
CAO1B	28	FUF_OV30	N	2	0	No.of females in age gr over 30
CAO1B	29	TOT_PAT	C	1	0	Total or Partial Catch? T/P
CAO1B	30	KU_SL	C	8	0	Serial for 1st day of fishing
CAO1B	31	EMT_DATE	D	8	0	Date emptied
CAO1B	32	NEXT_EMT	D	8	0	Date of next emptied
CAO1B	33	FRQ_EMT	N	2	0	Frequency of emptying
CAO1B	34	FMCODE	N	3	0	Fisherman code
CAO1B	35	HH_HEAD	C	1	0	House hold head code
CAO1B	36	RELIGION	C	1	0	Religion code
CAO1B	37	LANDAREA	N	8	2	Area of Land
CAO1B	38	LANDUNIT	C	2	0	Unit of measurement
CAO1B	39	VILLAGE	N	3	0	Village code
CAO1B	40	MOUSA	N	5	0	Mouza code
CAO1B	41	LEAS_DTL	C	200	0	Leasing details
CAO1B	42	FISH_MKT	C	200	0	Marketing detail
CAO1B	43	OTHER	C	200	0	Other detail
CAO1B	44	RANK_FM	N	1	0	Ranks for farmer
CAO1B	45	RANK_FS	N	1	0	for fisherman
CAO1B	46	RANK_LB	N	1	0	for labourers

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
CAO1B	47	RANK_TR	N	1	0	for traders
CAO1B	48	RANK_OT	N	1	0	for other traders
CAO1B	49	JBGR	N	3	0	Modified gearcode
CAO1B	50	MISSING	N	2	0	No.of fields (value missing)
CAO1B	51	GEARNAME	C	20	0	Gearname
CAO1B	52	SHEET	C	8	0	Used for batch control
CAO1B	53	BATCH	C	6	0	Used for batch control
CAO1B	54	DEMO1	C	1	0	Used for batch control
CAO1B	55	DEMO2	C	1	0	Used for Batch control
CAO2	1	SITE	C	4	0	Site code
CAO2	2	LOCN	C	1	0	Location code A....E
CAO2	3	SDATE	D	8	0	Survey date
CAO2	4	STIME	N	5	2	Survey time
CAO2	5	CAO1ID	C	8	0	Used for record control
CAO2	6	CAO2ID	N	3	0	Used for record control
CAO2	7	RECDR1	N	2	0	1st recorder code
CAO2	8	RECDR2	N	2	0	2nd recorder code
CAO2	9	GEARCODE	N	3	0	Gearcode
CAO2	10	LFA	C	1	0	Sent to lab for LFA ? Y/N
CAO2	11	REPRO	C	1	0	Reproduction status ? Y/N
CAO2	12	SPCODE	N	3	0	Fish code
CAO2	13	WEIGHT	N	6	0	Weight of individual fish
CAO2	14	NUMBER	N	6	0	No.of a specific fish
CAO2	15	CTCHTYPE	C	2	0	Catch type; CA= Catch, KA=Katha,KU=Kua
CAO2	16	JBGR	N	3	0	Modified gearcode
CAO2	17	MISSING	N	2	0	Value missing in no. of fields

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
CAO2	18	SHEET	C	8	0	Used for batch control
CAO2	19	BATCH	C	6	0	Used for batch control
CAO2	20	BATCHNO	N	4	0	Used for batch control
CAO2	21	SHEETNO	N	5	0	Used for batch control
CAO2	22	DEMO1	C	1	0	Used for batch control
CAO2	23	DEMO2	C	1	0	Used for batch control
CAO2	24	DEMO3	C	1	0	Used for batch control
CAO3_S2	1	SITE	C	4	0	Site code
CAO3_S2	2	LOCN	C	1	0	Location code
CAO3_S2	3	SDATE	D	8	0	Survey date
CAO3_S2	4	STIME	N	5	2	Survey time
CAO3_S2	5	CAOID	C	8	0	Used for record control
CAO3_S2	6	S2ID	N	3	0	Used for record control
CAO3_S2	7	RECDR1	N	2	0	1st recorder code
CAO3_S2	8	RECDR2	N	2	0	2nd recorder code
CAO3_S2	9	GEARCODE	N	3	0	Gearcode
CAO3_S2	10	TOTCTCH	N	7	2	Total weight
CAO3_S2	11	LFA	C	1	0	Sent to lab for LFA ? Y/N
CAO3_S2	12	REPRO	C	1	0	Reproduction status ? Y/N
CAO3_S2	13	SPCODE	N	3	0	Fishcode
CAO3_S2	14	SPNAME	C	5	0	Scientific name of fish
CAO3_S2	15	WT_INDV	N	6	0	Weight for step 2.
CAO3_S2	16	NOS_IND	N	4	0	number/count for step 2.
CAO3_S2	17	CTCHTYPE	C	2	0	Catch type; CA = Catch, KA=Katha,KU=Kua
CAO3_S2	18	JBGR	N	3	0	Modified gearcode

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
CAO3_S2	19	MISSING	N	2	0	No. Fields having missing value
CAO3_S2	20	SHEET	C	8	0	Used for batch control
CAO3_S2	21	BATCH	C	6	0	Used for batch control
CAO3_S2	22	DEMO1	C	1	0	Used for batch control
CAO3_S4	1	SITE	C	4	0	Site code
CAO3_S4	2	LOCN	C	1	0	Location code
CAO3_S4	3	SDATE	D	8	0	Survey date
CAO3_S4	4	STIME	N	5	2	Survey time
CAO3_S4	5	CAO1ID	C	8	0	Used for record control
CAO3_S4	6	S4ID	N	3	0	Used for record control
CAO3_S4	7	RECDR1	N	2	0	1st recorder code
CAO3_S4	8	RECDR2	N	2	0	2nd recorder code
CAO3_S4	9	GEARCODE	N	3	0	Gearcode
CAO3_S4	10	TOTCTCH	N	8	3	Total catch
CAO3_S4	11	LFA	C	1	0	LFA sent to lab ? Y/N
CAO3_S4	12	REPRO	C	1	0	Reproduction status ? Y/N
CAO3_S4	13	SPCODE	N	3	0	Fish code
CAO3_S4	14	SPNAME	C	25	0	Fish name
CAO3_S4	15	WT_SUBS	N	6	0	Weight for step 4.
CAO3_S4	16	NOS_SUBS	N	5	0	Number/count for step 4.
CAO3_S4	17	CTCHTYPE	C	2	0	Catch type, CA=Catch, KA=Katha,KU=Kua
CAO3_S4	18	JBGR	N	3	0	Modified gearcode
CAO3_S4	19	MISSING	N	2	0	No.of fields found blank
CAO3_S4	20	SHEET	C	8	0	Used for batch control
CAO3_S4	21	BATCH	C	6	0	Used for batch control
CAO3_S4	22	DEMO1	C	1	0	Used for batch control



<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
CAO4	1	SITE	C	4	0	Site code
CAO4	2	LOCN	C	1	0	Location code
CAO4	3	SDATE	D	8	0	Survey date
CAO4	4	STIME	N	5	2	Survey time
CAO4	5	RECDR1	N	2	0	1st recorder code
CAO4	6	RECDR2	N	2	0	2nd recorder code
CAO4	7	GEARCODE	N	3	0	Gearcode
CAO4	8	CAO1ID	C	8	0	Used for record control
CAO4	9	CAO4ID	N	4	0	Used for record control
CAO4	10	SUB_SMPL	C	1	0	Sub-sample? Y/N
CAO4	11	LEN_MS RD	C	1	0	Length measured? Y/N
CAO4	12	TOTNOS	N	5	0	Total number of fishes
CAO4	13	SPCODE	N	3	0	Species code
CAO4	14	TL_GOOD	C	1	0	Total length good? Y/N
CAO4	15	TOT_LEN	N	7	2	Total length
CAO4	16	SL_GOOD	C	1	0	Standard length good? Y/N
CAO4	17	STD_LEN	N	7	2	Standard length
CAO4	18	STG_RPRO	C	2	0	Stage of reproduction
CAO4	19	JBGR	N	3	0	Modified gearcode
CAO4	20	MISSING	N	2	0	No.of fields for blanks fields
CAO4	21	CTCHTYPE	C	2	0	CA = Catch, KA = Katha, KU = Kua
CAO4	22	SHEET	C	8	0	Used for batch control
CAO4	23	BATCH	C	6	0	Used for batch control
KAT01	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KAT01	2	SDATE	D	8	0	Date of survey in English as DD/MM/YY

<u>File</u> <u>Name</u>	<u>Field</u> <u>No.</u>	<u>Fields</u>	<u>Field</u> <u>Type</u>	<u>Width</u>	<u>Deci-</u> <u>mals</u>	<u>Description</u>
KAT01	3	RECDR	C	2	0	Code for the recorder
KAT01	4	KA_SL	C	8	0	Serial number of the Katha form
KAT01	5	KAT_OWNE	C	1	0	Whether a katha owner? Y/N
KAT01	6	SUB_LEAS	C	1	0	Whether a sub-lease? Y/N
KAT01	7	HIRED_FS	C	1	0	Whether a hired fisherman? Y/N
KAT01	8	OTHERS	C	0	0	Specify if any others?
KAT01	9	NAME	C	5	0	Name of the katha owner
KAT01	10	O_CODE	C	7	0	Owner's code
KAT01	11	RELIGION	C	2	0	Religion of the owner
KAT01	12	VILL	C	8	0	Name of the village
KAT01	13	HH_HEAD	C	1	0	Whether a house-hold head ? Y/N
KAT01	14	OWN_LAND N		7	2	Amount of land owned by
KAT01	15	LAND_UNI	C	2	0	Unit of the measurement used
KAT01	16	RANK_FH	N	1	0	Rank for fishing as income sources
KAT01	17	RANK_FM	N	1	0	Rank for farming as income sources
KAT01	18	RANK_LB	N	1	0	Rank for labour as income sources
KAT01	19	RANK_TR	N	1	0	Rank for trading as income sources
KAT01	20	RANK_OT	N	1	0	Rank for other as income sources
KAT01	21	LEASE_SY	N	1	0	Code for the leasing system
KAT01	22	TOT_KAT	N	3	0	Number of katha in that site
KAT01	23	FRQ_EMT	N	2	0	Frequency of katha fished
KAT01	24	SHC_KOWN	N	6	2	Percentage of katha shared by owner
KAT01	25	SHC_FTEA	N	6	2	Percentage of katha shared by fishing team
KAT01	26	SHC_OTHE	N	6	2	Percentage of katha shared by others
KAT01	27	SLC_A	N	1	0	Codes for the selections
KAT01	28	SLC_B	N	1	0	Codes for the selections

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
KAT01	29	SLC_C	N	1	0	Codes for the selections
KAT01	30	SLC_D	N	1	0	Codes for the selections
KAT01	31	SLC_E	N	1	0	Codes for the selections
KAT01	32	SHEET	C	8	0	Used for batch control
KAT01	33	BATCH	C	6	0	Used for batch control
KAT02	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KAT02	2	MONTH	C	3	0	Month of the year as JAN, FEB, MAR,,...
KAT02	3	YEAR	N	2	0	Year with century
KAT02	4	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KAT02	5	RECDR	C	2	0	Code for the recorder
KAT02	6	KAT02_SL	C	8	0	Serial number for the katha form
KAT02	7	KAT_LEN	N	7	2	Length of katha
KAT02	8	KLEN_UNI	C	2	0	Unit of length measurement
KAT02	9	KAT_WID	N	7	2	Width of the katha
KAT02	10	KWID_UNI	C	2	0	Unit of width measurement
KAT02	11	KA_CODE	C	7	0	Code for the katha
KAT02	12	LOCN	C	3	0	Location code A through E
KAT02	13	FRQ_EMT	N	2	0	Frequency of katha emptied
KAT02	14	FWK_CATC	N	6	2	Catch in 1st week
KAT02	15	FWKC_UNI	C	2	0	Unit in which catch measured
KAT02	16	FWK_VALU	N	8	2	Value for the catch of 1st week
KAT02	17	SWK_CATC	N	6	2	Catch in 2nd week
KAT02	18	SWKC_UNI	C	2	0	Unit in which catch measured
KAT02	19	SWK_VALU	N	8	2	Value for the catch of 2nd week

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
KAT02	20	TWK_CATC	N	6	2	Catch in 3rd week
KAT02	21	TWKC_UNI	C	2	0	Unit in which the catch measured
KAT02	22	TWK_VALU	N	8	2	Value for the catch of 3rd week
KAT02	23	FRWK_CAT	N	6	2	Catch in the fourth week
KAT02	24	FRWKC_UN	C	2	0	Unit in which catch measured
KAT02	25	FRWK_VAL	N	8	2	Values for the fourth week
KAT02	26	SHEET	C	8	0	Used for batch control
KAT02	27	BATCH	C	6	0	Used for batch control
KAT03	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KAT03	2	LOCN	C	3	0	Location code A through E
KAT03	3	XLOCN	C	3	0	Location code A through E
KAT03	4	MONTH	C	3	0	Month as JAN, FEB, MAR,,...
KAT03	5	KAT03_SL	C	8	0	Serial number of the form
KAT03	6	NAME_OWN C		5	0	Name of the owner
KAT03	7	SHORT_NA	C	5	0	Short name
KAT03	8	FAP17_CO	C	8	0	FAP -17 code
KAT03	9	VILL	C	0	0	Village name
KAT03	10	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KAT03	11	KAT_NAME	C	5	0	Name of katha
KAT03	12	WEIGHT	N	7	2	Weight of katha catch
KAT03	13	VALUE	N	8	2	Value of katha catch
KAT03	14	FB_DATE	D	8	0	Date of issue of KAT03
KAT03	15	OWN_DATE	D	8	0	Date given to owner
KAT03	16	COLL_DAT	D	8	0	Date of collection
KAT03	17	CHK_CODE	C	4	0	Check code



<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
KAT03	18	CHK_DATE	D	8	0	Check date
KAT03	19	SHEET	C	8	0	Used for batch control
KAT03	20	BATCH	C	6	0	Used for batch control
KAT05	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KAT05	2	LOCN	C	3	0	Location code A through E
KAT05	3	XLOCN	C	3	0	Location code A through E
KAT05	4	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KAT05	5	STIME	N	5	2	Time of survey in 24-hrs clock
KAT05	6	RECRD1	C	2	0	1st Recorder code
KAT05	7	RECDR2	C	2	0	2nd Recorder code
KAT05	8	OWN_CODE	C	4	0	Code of the owner
KAT05	9	OWN_NAME	C	5	0	Name of the owner/operator
KAT05	10	VILL	C	0	0	Village
KAT05	11	NO_KAT	N	4	0	No. of katha owned
KAT05	12	NO_LEASE	N	4	0	Number leased out
KAT05	13	NO_HIRED	N	4	0	Number fished by hired fisherman
KAT05	14	SHHET	C	8	0	Sheet number used for batch control
KAT05	15	BATCH	C	6	0	Used for batch control
KAT06	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KAT06	2	LOCN	C	3	0	Location code A through E
KAT06	3	XLOCN	C	3	0	Location code A through E
KAT06	4	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KAT06	5	STIME	N	5	2	Time of survey in 24-hrs clock

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
KAT06	6	RECDR1	C	2	0	1st Recorder code
KAT06	7	RECDR2	C	2	0	2nd Recorder code
KAT06	8	OWN_NAME	C	5	0	Name of the katha owner/operator
KAT06	9	COMM_NAM	C	5	0	Common name
KAT06	10	VILL	C	0	0	Name of village
KAT06	11	FAP17_CO	C	8	0	FAP 17 Code/registration number
KAT06	12	OWNER	C	1	0	Owner Y/N ?
KAT06	13	LS_HOLD	C	1	0	Leaseholder Y/N ?
KAT06	14	OTHER	C	1	0	Other Y/N ?
KAT06	15	KAT_CODE	C	7	0	Katha code
KAT06	16	LOC_NAME	C	5	0	Local name
KAT06	17	LENGTH	N	7	2	Length of katha
KAT06	18	LEN_EM	C	1	0	Length of katha estimated
KAT06	19	LEN_UNIT	C	1	0	Unit in which length measured
KAT06	20	WIDTH	N	7	2	Width of katha
KAT06	21	WID_EM	C	1	0	Width of katha estimated
KAT06	22	WID_UNIT	C	1	0	Unit in which width measured
KAT06	23	AREA	N	8	2	Area of katha
KAT06	24	AREA_EM	C	1	0	Area of katha estimated
KAT06	25	AREA_UNI	C	1	0	Unit in which area measured
KAT06	26	CON_DATE	D	8	0	Date of construction of katha
KAT06	27	FSH_DATE	D	8	0	Date of first fishing
KAT06	28	COMMENTS	C	40	0	Comments if any
KAT06	29	SHEET	C	8	0	Used for batch control
KAT06	30	BATCH	C	6	0	Used for batch control

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
KAT10	1	SITE	C	2	0	Region code as NW, SW, NE and NE
KAT10	2	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KAT10	3	MONTH	C	3	0	Month of the year JAN, FEB, MAR,,...
KAT10	4	YEAR	C	4	0	Year with century i.e. 1981, 1991,,...
KAT10	5	OWN_NAME	C	5	0	Name of the owner
KAT10	6	CODE	C	7	0	Code for the owner
KAT10	7	KAT_SITE	N	4	0	No. of katha site
KAT10	8	KAT_FSD	C	4	0	No. of katha fished
KAT10	9	KAT_CAS	N	4	0	Katha in CAS? Y/N
KAT10	10	CARDS	C	1	0	Cards issued? Y/N
KAT10	11	INT_DATA	C	1	0	Data by interview? Y/N
KAT10	12	BKGND	C	5	0	Background
KAT10	13	SOCIO	C	5	0	Socioeconomic
KAT10	14	CATCH	C	5	0	Catch ? Y/N
KAT10	15	SHEET	C	8	0	Used for batch control
KAT10	16	BATCH	C	6	0	Used for batch control
KUA01	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KUA01	2	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KUA01	3	RECDR	C	2	0	Code for the recorder
KUA01	4	KU_SL	C	8	0	Serial number
KUA01	5	KUA_OWNE C		1	0	Whether a kua owner? Y/N
KUA01	6	SUB_LEAS	C	1	0	Whether a sub-lease? Y/N
KUA01	7	HIRED_FS	C	1	0	Whether a hired fisherman? Y/N
KUA01	8	OTHERS	C	0	0	Others specify

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
KUA01	9	NAME	C	5	0	Name of the owner of kua
KUA01	10	CODE	C	7	0	Code for the kua owner
KUA01	11	RELIGION	C	2	0	Religion of the owner
KUA01	12	VILL	C	2	0	Village name
KUA01	13	HH_HEAD	C	1	0	Whether a household head ? Y/N
KUA01	14	OWN_LAND	N	7	2	Area of land owned
KUA01	15	LAND_UNI	C	5	0	Unit for land measurement
KUA01	16	RANK_FH	N	1	0	Ranking of income source as fishing
KUA01	17	RANK_FM	N	1	0	Ranking of income source as farming
KUA01	18	RANK_LB	N	1	0	Ranking of income source as labour
KUA01	19	RANK_TR	N	1	0	Ranking of income source as trade
KUA01	20	RANK_OT	N	1	0	Ranking of income source as others
KUA01	21	LEASE_SY	N	1	0	Leasing system code
KUA01	22	TOT_KUA	N	4	0	Total number of kua
KUA01	23	FRQ_EMT	N	2	0	Frequency of kua emptied
KUA01	24	SHC_KOWN	N	6	2	Share percentage for kua owner
KUA01	25	SHC_FTEA	N	6	2	Share percentage for fishing team
KUA01	26	SHC_OTHE	N	6	2	Share percentage for others
KUA01	27	SLC_A	N	1	0	Sale of catch, code
KUA01	28	SLC_B	N	1	0	Sale of catch, if combination then code
KUA01	29	SLC_C	N	1	0	Sale of catch, if combination then code
KUA01	30	SLC_D	N	1	0	Sale of catch, if combination then code
KUA01	31	SLC_E	N	1	0	Sale of catch, if combination then code
KUA01	32	SHEET	C	8	0	Used for batch control
KUA01	33	BATCH	C	6	0	Used for batch control



<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
KUA02	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KUA02	2	MONTH	C	3	0	Month as JAN, FEB, MAR,,...
KUA02	3	YEAR	N	2	0	Year with century
KUA02	4	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KUA02	5	RECDR	C	2	0	Recorder code
KUA02	6	KUA02_SL	C	8	0	Kua serial
KUA02	7	KUA_LEN	N	7	2	Length of kua
KUA02	8	KLEN_UNI	C	2	0	Unit for length measurement
KUA02	9	KUA_WID	N	7	2	Width of kua
KUA02	10	KWID_UNI	C	2	0	Unit for width measurement
KUA02	11	CODE	C	8	0	Code for the recorder
KUA02	12	LOCN	C	3	0	Location code A through E
KUA02	13	FRQ_EMT	N	2	0	Frequency of kua emptied
KUA02	14	FWK_CATC	N	7	2	Catch in 1st week
KUA02	15	FWKC_UNI	C	2	0	Unit of measurement for 1st week
KUA02	16	FWK_VALU	N	7	2	Value of catch for 1st week
KUA02	17	SWK_CATC	N	7	2	Catch in 2nd week
KUA02	18	SWKC_UNI	C	2	0	Unit of measurement for 2nd week
KUA02	19	SWK_VALU	N	7	2	Value of catch for 2nd week
KUA02	20	TWK_CATC	N	7	2	Catch in 3rd week
KUA02	21	TWKC_UNI	C	2	0	Unit of measurement for 3rd week
KUA02	22	TWK_VALU	N	8	2	Value of catch for 3rd week
KUA02	23	FRWK_CAT	N	7	2	Catch in 4th week
KUA02	24	FRWKC_UN	C	2	0	Unit of measurement for 4th week
KUA02	25	FRWK_VAL	N	7	2	Value of catch for 4th week

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
KUA02	26	SHEET	C	8	0	Used for batch control
KUA02	27	BATCH	C	6	0	Used for batch control
KUA03	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KUA03	2	LOCN	C	3	0	Location code A through E
KUA03	3	XLOCN	C	3	0	Location code A through E
KUA03	4	MONTH	C	3	0	Month as JAN, FEB,MAR,,...
KUA03	5	KUA03_SL	C	6	0	Kua serial
KUA03	6	NAME_OWN C		5	0	Name of the owner
KUA03	7	SHORT_NA	C	5	0	Short name
KUA03	8	FAP17_CO	C	8	0	FAP 17 code
KUA03	9	VILL	C	0	0	Village name
KUA03	10	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KUA03	11	KUA_NAME	C	5	0	Name of kua
KUA03	12	WEIGHT	N	6	2	Weight of kua catch
KUA03	13	VALUE	N	8	2	Value of kua catch
KUA03	14	FB_DATE	D	8	0	Date of FB
KUA03	15	OWN_DATE	D	8	0	Date KUA03 given to owner
KUA03	16	COLL_DAT	D	8	0	Date KUA03 of collection
KUA03	17	CHK_CODE	C	4	0	Check code
KUA03	18	CHK_DATE	D	8	0	Check date
KUA03	19	SHEET	C	8	0	Used for batch control
KUA03	20	BATCH	C	6	0	Used for batch control
KUA05	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
KUA05	2	LOCN	C	3	0	Location code A through E

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
KUA05	3	XLOCN	C	3	0	Location code A through E
KUA05	4	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KUA05	5	STIME	N	5	2	Time of survey in 24-hrs clock
KUA05	6	RECRD1	C	2	0	1st recorder code
KUA05	7	RECDR2	C	2	0	2nd recorder code
KUA05	8	OWN_CODE	C	4	0	Owner code
KUA05	9	OWN_NAME	C	5	0	Owner name
KUA05	10	VILL	C	0	0	Village
KUA05	11	NO_KUA	N	4	0	Number of kua
KUA05	12	NO_LEASE	N	4	0	Number of lease
KUA05	13	NO_HIRED	N	4	0	Number of hired fisherman
KUA05	14	SHEET	C	8	0	Sheetno used for batch control
KUA05	15	BATCH	C	6	0	Used for batch control
KUA06	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,....
KUA06	2	LOCN	C	3	0	Location code A through E
KUA06	3	XLOCN	C	3	0	Location code A through E
KUA06	4	SDATE	D	8	0	Date of survey in English as DD/MM/YY
KUA06	5	STIME	N	5	2	Time of survey in 24-hrs clock
KUA06	6	RECDR1	C	2	0	1st recorder code
KUA06	7	RECDR2	C	2	0	2nd recorder code
KUA06	8	OWN_NAME	C	5	0	Name of the owner/operator
KUA06	9	COMM_NAM	C	5	0	Common name
KUA06	10	VILL	C	0	0	Name of village
KUA06	11	FAP17_CO	C	8	0	FAP 17 Code number/registration no.

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
KUA06	12	OWNER	C	1	0	Owner Y/N ?
KUA06	13	LS_HOLD	C	1	0	Leaseholder Y/N ?
KUA06	14	OTHER	C	1	0	Other Y/N ?
KUA06	15	KUA_CODE	C	7	0	Kua code
KUA06	16	LOC_NAME	C	5	0	Local name to identify
KUA06	17	LENGTH	N	6	2	Length of kua in metres
KUA06	18	LEN_EM	C	1	0	Length estimated
KUA06	19	LEN_UNIT	C	1	0	Unit in which length measured
KUA06	20	WIDTH	N	6	2	Width of kua in metres
KUA06	21	WID_EM	C	1	0	Width estimated
KUA06	22	WID_UNIT	C	1	0	Unit in which width measured
KUA06	23	AREA	N	7	2	Area of kua in metres
KUA06	24	AREA_EM	C	1	0	Area of kua estimated
KUA06	25	AREA_UNI	C	1	0	Unit in which area measured
KUA06	26	CON_DATE	D	8	0	Date of construction
KUA06	27	FSH_DATE	D	8	0	Date first fished
KUA06	28	COMMENTS	C	40	0	Comments if any
KUA06	29	SHHET	C	8	0	Sheet number used for batch control
KUA06	30	BATCH	C	6	0	Used for batch control
KUA10	1	REGION	C	2	0	Region as NW, NE, SW and NC
KUA10	2	SITE	C	4	0	Site code
KUA10	3	LOCN	C	1	0	Location code A through E
KUA10	4	XLOCN	C	3	0	Location code when more than one
KUA10	5	MONTH	C	3	0	Month as JAN, FEB, MAR,.....
KUA10	6	YEAR	C	4	0	Year with century as 1991, 1993,.....



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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
KUA10	7	YM	C	6	0	Year and month
KUA10	8	OWN_NAME	C	5	0	Owner's name
KUA10	9	CODE	C	8	0	Code for the owner
KUA10	10	KUA_SITE	N	4	0	Number of kuas in that site
KUA10	11	KUA_FSHD	N	4	0	Number of kuas fished
KUA10	12	KUA_CAS	N	4	0	Number of kuas in CAS
KUA10	13	CARDS	C	1	0	Whether any cards issued? Y/N
KUA10	14	INT_DATA	C	1	0	Data collected by interview? Y/N
KUA10	15	BKGND	C	5	0	Background
KUA10	16	SOCIO	C	5	0	Socioeconomic
KUA10	17	CATCH	C	5	0	Catch
KUA10	18	SHEET	C	8	0	Sheetno used for batch control
KUA10	19	BATCH	C	6	0	Batch number used for batch control

## 2.4 Description of Survey Forms

Reference number	Survey	Purpose of information on form
CA01	Catch Assessment Survey	Questionnaire to establish times of fishing by gear (day & night); numbers and characteristics of gear; age, sex and type of fisherman/fishermen.
CA01a	"	Questionnaire to establish whether catch is total or partial harvest; frequency katha fishing; size of katha; characteristics of gear surrounding katha; number, age, sex and type of fisherman/fishermen; marketing of catch and leasing system.
CA01b	"	Questionnaire to establish whether catch is total or partial harvest; frequency of harvesting kua; size & depth of kua; characteristics of gear used for harvesting; number, age, sex and type of fisherman/fishermen; marketing of catch, leasing system & details of kua owner.
CA02	"	Weight and number of species in the catch. CA02 <u>OR</u> CA03 filled in together with CA01, CA01a and CA01b.
CA03	"	Sub-sample details of large catches. Weight and number of all large fish and sub-sample of small fish. CA03 <u>OR</u> CA02 filled in together with CA01, CA01a and CA01b.
CA04	Length Frequency Analysis Reproduction Fish Movement	Lengths and reproductive condition of "key" species of fish sub-sampled for these studies.
KAT01	Katha Study	Socioeconomic data
KAT02	"	Katha Catch Form: Secondary Interview Data
KAT03	"	Katha Card - Issued to Katha Owners to Record Catch
KAT05	"	Katha Owner/Operation Form
KAT06	"	Individual Katha Owner/Operation Form
KAT10	"	Monthly Survey Summary
KUA01	Kua Study	Socioeconomic data
KUA02	"	Kua Catch Form: Secondary interview data
KUA03	"	Kua Card - Issued to Katha Owners to Record Catch
KUA05	"	Kua owner/operation Form
KUA06	"	Individual Kua Owner/Operation Form
KUA10	"	Monthly Survey Summary

## 2.5 Copies of Survey Forms

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## CATCH ASSESSMENT QUESTIONNAIRE

Day	Night							
Ref.	Site	Locn	Date.	Time(24hr)	Recorder 1	Code 1	Recorder 2	Code 2
CA01	NC11	A	03.11.92	0630	LAKSHMAN	08	SALIM	03

Description of Gears.

Main Gear Code:	45	Name: Local	English	Seine net
No. of gears used in sampling site	1	No. of gears which caught observed catch	1	
Nets:	No. hauls for this catch.	3	Total hauls today:	7
Traps/hooks	Baited Y / N	-		
Longline (Daun):	No of lines set:	-	No of hooks per line (see over)	No of hooks which caught this catch
Sip/Barshi	No. of hook/lines in sampling site	-	No of hooks used	No. of hook/lines caught fish
Gill net	Setting: Top.....T All settings..A Middle.....M Bottom.....B		Setting: Fixed.....F Drifting....D	
Mesh Size (mm)	Gear Length (Observe)	Gear Width (Observe)	Fish'man Gear	
			Length	Width
E (M)	E M	E M	200	17
10	-	-	hath	hath
			Material: Multifilament Monofilament Knotless nylon Other.....	Owned by: Self Fishing Unit Outsider....
			(M) S K O	S U O

Number of people in fishing unit.

Age 5 - 15		Age 16 - 30		Age 30+	
Male	Female	Male	Female	Male	Female
		2	-	4	-

Time spent fishing.

What time did you start fishing this place today? (24hr clock)	Date:	0300
What time will you finish fishing in this place today? (24hr clock)		1400
How many hours did it take to catch these fish? (Hrs and mins)		03:30
How many days did you fish in the last seven days?		07
How many days will you fish in the next seven days?		06
Do you fish every month? (Y/N)		Y
Do you fish at night? (Y/N)		Y
If Y.. How many nights did you fish last week?		01
If Y.. How many nights will you fish next week?		02
If Y.. What gear do you use at night?		Bar jal
If Y.. What time do you finish fishing at night?		0630
Do you normally (Y/N)	Sell nearly all your catch	Y
	Sell half, eat half	-
	Eat nearly all your catch	-

Fisherman:

Name	Dulal Chandra Rajbonshi	Religion		Fathers name	Late Hira ch. Rajbonshi	Code	
Are you Head of your Household? (Y/N)						Y	
How much land is owned by your household excluding the homestead? (State units)							
Village	Porabari				District	Tangail	
Do you do any other kind of work at any time of the year? (State Y/N)							
If Yes what sort (Show order of importance 1 to 5)?							
Farmer	-	Agricultural Worker	-	Fish Trader	-	Other Trader	-
						Job Holder	-
						Student	-
Ranking of household income from different sources in order of importance 1 (highest) to 5 (lowest)							
Fishing		Farm		Labour		Trade	
						Other	

CATCH ASSESSMENT QUESTIONNAIRE (KATHA)

Important Note: This form should be used to record total fish catch. If partial catches are recorded then the katha must be sampled on consecutive days until the total catch is obtained.

Ref.	Site	Locn	Date.	Time(24hr)	Recorder 1	Code 1	Recorder 2	Code 2
CA01A	NC29	C	12.12.93	1635	TUHIN	86	TARIFUL	75

Description of Main Gear. e.g. Katha (270) Boat Katha (314) Horga (149)

Main Gear Code:	270	Name: Fish aggregation device (FAD)
No. of Katha which caught observed catch	01	
Length of Katha (metres)	12	Width of Katha (metres) 05
Material used for Katha Bamboo..(Y)/N Bush..(Y)/N Water Hyacinth .... .% (cover)		
Estimated Depth water (metre)	1.2	5%

Gear used to surround Katha

Name	Bar jal	Code	45
Length (hat)			60
Depth (hat)			12
Mesh Size (mm)			05
Net material: Multifilament..M Monofilament...S Knotless nylon...K Other.....O			

Gear used to catch fish

Gear Name	Gear Code	Number of gear used
Jhaki jal	164	01

Number of people in fishing unit.

Age 5 - 15				Age 16 - 30				Age 30+			
Male	-	Female	-	Male	01	Female	-	Male	03	Female	-

Other Information.

Number of boats used				01
Is it a Total (T)/Partial (P) Catch ?	T/P	T	If Partial, give Srl. No. of CA01 of 1st day fishing	—
Fishing duration (days): -Number of days from starting to surround Katha to catching all fish				01
Date Katha first constructed				09.10.93
Date when last emptied of fish				06.11.93
Date when Katha will NEXT be fished				10.01.94
Number of times Katha fished this month				01

Fisherman:

Name	Sahjahan Ali	Religion	M	Fathers name	-	Code	5452
Are you Head of your Household? (Y/N)							Y
How much land is owned by your household excluding the homestead? (State units)							-
Village	Ghunapara	District					MANIKGANGA
Ranking of household income from different sources in order of importance 1 (highest) to 5 (lowest)							
Fishing	02	Farm	01	Labour	-	Trade	-
Other							-

Leasing details of katha

Select which leasing system from one of those listed on reverse.	03
--	----

Sale of catch

Select one of those listed on reverse by entering its number in box	02
---	----



Share of catch

Estimate percentage of catch distributed to the following:

Katha owner	50 %	Fishing team	50%	Others specify	—
-------------	------	--------------	-----	----------------	---

Leasing details of katha

1. Private land, private ownership, no licence no lease.
2. Katha owner fee to leaseholder Min of land.
3. Katha owner fee to DoF/NFMP.
4. Local lease (Mosque, individual etc.).
5. Purchased from owner.
6. Others, specify:-

Sale of catch

1. On site to local people
2. On site to bepari
3. To owner of Katha
4. To local market by fishermen
5. To urban market

CATCH ASSESSMENT QUESTIONNAIRE (KUA)

Important Note: This form should be used to record total fish catch. If partial catches are recorded then the kua must be sampled on consecutive days until the total catch is obtained.

Ref.	Site	Locn	Date.	Time(24hr)	Recorder 1	Code 1	Recorder 2	Code 2
CA01B	SW05	A	24.02.94	0635	SAYEED	79	TARIQUL	84

Description of Main Gear.

Main Gear Code:	302	Name: Kua/Fish aggregation device (FAD)
No. of Kua which caught observed catch	01	
Length of Kua (metres)	80	Width of Kua (metres) 60
Material used for Kua Bamboo...Y / (N) Bush... (Y) / N Water Hyacinth .... % (cover)		
Estimated Depth water (metre)	1.5	50%

Gear used to catch fish

Local Gear Name	English Name	Code	Number of gear used
Ber jal	Seine net	45	01

Number of people in fishing unit.

Age 5 - 15		Age 16 - 30		Age 30+ .....	
Male		Female		Male	Female
			2	2	

Other Information.

Is it a Total (T)/Partial (P) Catch ?	T/P	P	If Partial, give Srl. No. of CA01 of 1st day fishing	SW604
Date when Kua last fished				29.11.93
Date when Kua will NEXT be fished				25.2.94
Number of times Kua fished this month				01

Owner of Kua:

Name	Ayub Matobber	Religion	M	Fathers name	Rashid	Code	
Are you Head of your Household? (Y/N)						Y	
How much land is owned by your household excluding the homestead? (State units)						-	-
Village		Tujarpur		District		Madanipur	

Ranking of household income from different sources in order of importance 1 (highest) to 5 (lowest)									
Fishing	02	Farm	03	Labour	-	Trade	-	Other	01

Leasing details of kua

Select which leasing system from one of those listed on reverse	01
---	----

Sale of catch

Select one of those listed on reverse by entering its number in box	02
---	----

Share of catch

Estimate percentage of catch distributed to the following:

Kua owner	75%	Fishing team	25%	Others specify	-
-----------	-----	--------------	-----	----------------	---



Leasing details of kua

1. Private land, private ownership, no licence no lease.
2. Kua owner fee to leaseholder Min of land.
3. Kua owner fee to DoF/NFMP.
4. Local lease (Mosque, individual etc.).
5. Purchased from owner..
6. Others, specify:-

Sale of catch

1. On site to local people
2. On site to bepari
3. To owner of Kua
4. To local market by fishermen
5. To urban market

Ref.	Site	Locn	Date.	Time(24hr)	Recorder 1	Code 1	Recorder 2	Code 2
CA02	NW07	Z	17-11-93	0730	NAMUN	3A	MIATU	12

Were these fish sent to LAB for	LFA	N	Y/N	REPRO	N	Y/N
---------------------------------	-----	---	-----	-------	---	-----

[illegible]



30  
INSTRUCTION FOR IMPROVED LENGTH FREQUENCY ANALYSIS (LFA)

THIS WORK SHOULD BE CARRIED OUT ON CATCHES FROM GEARS:

SEINE NETS = codes 45, 268, 89, 297, 175, 293, 313, 276, 304, 132, 277, 126

LIFT NETS = codes 266, 105, 160, 319

KATHA & KUA = codes 270, 302 & 318

OTHER GEARS = codes 164, 255, 97, 98

Field Biologists : NW, NC and NE regions.

For CAS where whole catch is assessed :-

1. the whole catch OR all of the key species and other common fish species should be sent back to the laboratory for length measurements.
2. if large fish are caught, but the fisherman refuses to sell them, then the lengths of these fish should be measured in the field and recorded on CA04 forms.
3. if the fisherman refuses to sell any fish, then try to persuade the fisherman to allow you to measure all of the key species and other common fish species in the field if time is available.

For CAS where catch is subsampled :-

1. do CAS as usual i.e. weight total catch, separate larger fish and weigh and count and record them individually. Subsample, weigh and count and record as usual.
2. if there are 5 or less large fish, measure lengths individually and record on CA04 forms.
3. if there are more than 5 larger fish, mix these back with the whole catch and take a large subsample for LFA (much larger than the one for CAS). Weigh this LFA subsample and record on CA03 form.
4. send the LFA sample to the laboratory for length measurements.

Field Biologists : Main River Survey.

For CAS where whole catch is assessed :-

1. if the fisherman will sell or allow the catch to be handled, then the lengths of all of the key species and other common fish species should be measured if time is available.

For CAS where catch is subsampled :-

1. do CAS as usual i.e. weight total catch, separate larger fish and weigh and count and record them individually. Subsample, weigh and count and record as usual.
2. if there are 5 or less large fish, measure the lengths of these individually and record on CA04 forms.
3. if there are more than 5 larger fish, mix these back with the whole catch and take a large subsample for LFA (much larger than the one for CAS). Weigh this LFA subsample and record on CA03 form.
4. measure the length of all the key species and other common fish species in the LFA sample and record on separate CA04 forms to the large fish. Be sure to keep all forms from one catch together. If possible measure the lengths of all the fish of the key species and other common fish in the catch.



Gear code and Document serial number from CA01	Gear: 45	Mesh Size	05	Srl No: 05152
--	----------	-----------	----	---------------

Were the lengths of the large fish of this species measured in field or lab ? Y/N	-
Is this a subsample Y/N	y

Scientific Name: <u>Amblypharyngodon mola</u>	Code: <u>5</u>
---	----------------

[illegible][illegible]

Number of entries:	
--------------------	--

y2  
Instructions.

1. Make sure that the details from the preliminary survey form are copied from either original or label on plastic bag.
2. total the number of entries made on the form when complete.

Sexual Maturity

Resting	RE
Active	AC
Ripe	RI
Ripe Running	RR
Spent	SP

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KATHA KUA STUDY  
SOCIO-ECONOMIC DATA

Ref	Site	Date	Recorder	Code	Serial No.
KAT 01	NW11	22.01.91	CHISTY	73	171

STATUS OF INTERVIEWEE

Katha owner Y/N	Y	Sub-Lessee Y/N	—	Hired Fisherman Y/N	—	Others Specify	—
--------------------	---	-------------------	---	------------------------	---	-------------------	---

Name	Kazem Uddin	Code	—	Religion	M	Village	Kaliani
------	-------------	------	---	----------	---	---------	---------

Are you head of household [Y/N] ?	Y
-----------------------------------	---

How much land is owned by your household excluding household (state units)	
--	--

Ranking of household income from different sources in order of importance 1 (highest) to 5 (lowest)									
Fishing	1	Farm	—	Labour	—	Trade	—	Other	—

LEASING DETAILS OF KATHA

Select which leasing system from one of below and enter code no here	3
--	---

1. Private land, private ownership, no licence no lease.
2. Kua owner fee to leaseholder Min of land.
3. Kua owner fee to DoF/NFMP.
4. Local lease (Mosque, individual etc.).
5. Purchased from owner.
6. Others, specify:-

KATHA FISHING

How many Katha owned/leased/fished in this site ?	4
---	---

How many times fished/Month ?	1
-------------------------------	---

Give details, where possible, of individual Katha size & catch on KAT 02.

SHARE OF CATCH

Estimate percentage of catch distributed to the following:

Katha owner	75%	Fishing team	25%	Others specify	
-------------	-----	--------------	-----	----------------	--

SALE OF CATCH

Select one of those listed below by entering its number in box	2
--	---

1. On site to local people
2. On site to bepari
3. To owner of Katha
4. To local market by fishermen
5. To urban market

If a combination of methods listed above is used, enter, code, numbers				
--	--	--	--	--

## KATHIA KUA STUDY

# KATHA CATCH FORM

Ref	Site	Time for which catch data collected		Recorder	Code	Serial number
		Month	Year			
KAT 02	NW03	JAN	1994	FRINCE	90	15

Note: The catch data below should be for the English month recorded above and english weeks of that month in the table below. Use Calendar conversion chart below.

[illegible]

English month	March	April	May	June	July	August	September	October	November	December	January	February	Mar
Bangla month	Chaitra	Baishak	Jyestha	Ashar	Sraavan	Vadra	Ashwin	Kartik	Aganayyan	Poush	Magh		Falgun



# KATHA CARD

Ref.	Site	Locn.	Month	Serial No.
KAT 03	SW-02	A	JANUARY	1

1. Name of the Owner	ABDUR RAZZAK	Short name	RAZZAK
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2. FAP 17 Code No.	B-001
--------------------	-------

3. Village Name	PURBORAST I
-----------------	-------------

Date of Catch	Name of Katha	Weight of fish	Value of catch
31.1.94		17 kg	700 TAKA

Date issued to FB		Card checked by	
Date given to owner		Name	
Date collected		Code:	
Issued by		Date:	

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Ref.	Site	Locn	Date	Time	Recorder1	Code	Recorder2	Code
KAT 05	NW03	Z	12.11.93	0800	PRINCE	90	ADWAITA	95

[illegible]

Source of Information.

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Ref.	Site	Locn	Date	Time	Recorder1	Code	Recorder2	Code
KAT 06	NW03	Z	11.11.93	1120	ADWAITA	93	PRINCE	90

1. Name of the Katha owner/operator	Common name	Village
Saiful Sheikh	Saiful	Darimalanchi

2. FAP 17 Code number of owner/operator	Owner Y/N	Lease Holder Y/N	Other Y/N
BA41	Y		

[illegible]

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Ref	Region	Site	Month	Year
KAT 10	NW	03	NOVEMBER	1993

[illegible]



KATHA KUA STUDY  
SOCIO-ECONOMIC DATA

Ref	Site	Date	Recorder	Code	Serial No.
KUA 01	NC 24	02.01.94	LIKHON	78	52

STATUS OF INTERVIEWEE

Kua owner Y/N	N	Sub-Lessee Y/N	Y	Hired Fisherman Y/N	Y	Others Specify	—
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Name	SHUKLAL HOLDER	Code	SH09	Religion	H	Village	KURIKAUNI
------	----------------	------	------	----------	---	---------	-----------

Are you head of household [Y/N] ?	Y
-----------------------------------	---

How much land is owned by your household excluding household (state units)	—
--	---

Ranking of household income from different sources in order of importance 1 (highest) to 5 (lowest)									
Fishing	01	Farm	—	Labour	—	Trade	02	Other	—

LEASING DETAILS OF KUA

Select which leasing system from one of below and enter code no here	05
--	----

1. Private land, private ownership, no licence no lease.
2. Kua owner fee to leaseholder Min of land.
3. Kua owner fee to DoF/NFMP.
4. Local lease (Mosque, individual etc.).
5. Purchased from owner.
6. Others, specify:-

KUA FISHING

How many Kua owned/leased/fished in this site ?	10
---	----

How many times fished/month ?	01
-------------------------------	----

Give details, where possible, of individual Kua size & catch on KUA 02.

SHARE OF CATCH

Estimate percentage of catch distributed to the following:

Kua owner	80%	Fishing team	17%	Others specify	3%
-----------	-----	--------------	-----	----------------	----

Villagers

SALE OF CATCH

Select one of those listed below by entering its number in box	04
--	----

1. On site to local people
2. On site to bepari
3. To owner of Kua
4. To local market by fishermen
5. To urban market

If a combination of methods listed above is used, enter, code, numbers				
--	--	--	--	--

KATHA KUA STUDY  
KUA CATCH FORM

Ref	Site	Time for which catch data collected		Date	Recorder	Code	Serial number
		Month	Year				
KUA 02	NC 24	JANUARY	1993	02.01.94	LIKHTON	78	NC-67

Note: The catch data below should be for the English month recorded above and english weeks of that month in the table below. Use Calendar conversion chart below.

[illegible]

English month	March	April	May	June	July	August	September	October	November	December	January	February	Mar
Bangla month	Chaitra	Baisak	Jyest	Asar	Sravan	Vadra	Ashwin	Kartik	Agrihayun	Poush	Magh	Falgun	

## KUA CARD

17

Ref.	Site	Locn.	Month	Serial No.
KUA 03				

1. Name of the Owner		Short name	
----------------------	--	------------	--

2. FAP 17 Code No.	
--------------------	--

3. Village Name	
-----------------	--

Date of Catch	Name of Kua	Weight of fish	Value of catch

Date issued to FB		Card checked by	
Date given to owner		Name	
Date collected		Code:	
Issued by		Date:	

५२

Ref.	Site	Locn	Date	Time	Recorder1	Code	Recorder2	Code
KUA 05	NC28	Z	05.02.94	0800	ZOHIR	23		

[illegible]

Source of information.



Ref.	Site	Locn	Date	Time	Recorder1	Code	Recorder2	Code
KUA 06	N 28	Z	05.02.94	0900	ZOHIR	23	—	

1. Name of the Kua owner/operator	Common name	Village
md. chhatu pr.	chhatu	Durgapur

2. FAP 17 Code number of owner/operator	Owner Y/N	Lease Holder Y/N	Other Y/N
	Y		

[illegible]

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Ref	Region	Site	Month	Year
KUA 10	NW	04	FEB	1994

[illegible]

### 3 FISHING EFFORT SURVEY

#### 3.1 List of Database

- 01. Form: FEO1 - Fishing Effort Questionnaire - Gear Counts  
FEO1.DBF
- 02. Form: FEO1(A)- Fishing Effort Questionnaire (Jamuna and Padma rivers)  
FEO1OTT.DBF
- 03. Form: FEO2 - Fishing Effort Questionnaire - Days, Nights Fished  
FOE2.DBF
- 04. Form: FEO3 - Supplementary Gear Survey  
FEO3.DBF
- 05. Form: NFO1 - Count of Night Fishing Gears  
NFGARS.DBF

#### 3.2 Structure of Databases

##### 3.2.1 Structure for database: FEO1.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	XLOCN	Character	4		N
4	SDATE	Date	8		N
5	FEO1ID	Character	8		N
6	FEO1REC	Numeric	4		N
7	RECDR1	Numeric	2		N
8	RECDR2	Numeric	2		N
9	BEGTIME	Numeric	5	2	N
10	ENDTIME	Numeric	5	2	N
11	HRS_CNT	Numeric	2		N
12	GEARCODE	Numeric	3		N
13	TOT_NOS	Numeric	6		N
14	JBGR	Numeric	3		N
15	GENERATED	Character	2		N
16	MISSING	Numeric	2		N
17	SHEET	Character	8		N
18	BATCH	Character	6		N
19	DEMO1	Character	1		N
20	DEMO2	Character	2		N

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Field	Field Name	Type	Width	Dec	Index
21	SHEETNO	Numeric	5		N
22	BATCHNO	Numeric	4		N
23	DEMO3	Character	1		N
<b>** Total **</b>			<b>89</b>		

### 3.2.2 Structure for database: FEO1OTT.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	XLOCN	Character	3		N
4	SDATE	Date	8		N
5	FEO1ID	Character	8		N
6	FEO1REC	Numeric	4		N
7	RECDR1	Numeric	2		N
8	RECDR2	Numeric	2		N
9	FROM_TM	Numeric	5	2	N
10	TO_TM	Numeric	5	2	N
11	GEARCODE	Numeric	3		N
12	TOT_NOS	Numeric	4		N
13	JBGR	Numeric	3		N
14	SHEET	Character	8		N
15	BATCH	Character	6		N
16	SHEETNO	Numeric	5		N
17	BATCHNO	Numeric	4		N
18	DEMO1	Character	1		N
19	DEMO2	Character	1		N
20	DEMO3	Character	1		N
<b>** Total **</b>			<b>79</b>		

### 3.2.3 Structure for database: FEO2.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	XLOCN	Character	4		N
4	SDATE	Date	8		N
5	FEO2ID	Character	8		N
6	FEO2REC	Numeric	3		N
7	RECDR1	Numeric	2		N
8	RECDR2	Numeric	2		N
9	BEGTIME	Numeric	5	2	N
10	ENDTIME	Numeric	5	2	N
11	GEARUNIT	Numeric	1		N



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Field	Field Name	Type	Width	Dec	Index
12	GEARCODE	Numeric	3		N
13	A_HRS	Numeric	5	2	N
14	B_DAYS	Numeric	1		N
15	C_DAYS	Numeric	1		N
16	FSH_NHT	Character	1		N
17	D_NHTS	Numeric	1		N
18	E_NHTS	Numeric	1		N
19	JBGR	Numeric	3		N
20	MISSING	Numeric	2		N
21	SHEET	Character	8		N
22	BATCH	Character	6		N
23	DEMO1	Character	1		N
24	DEMO2	Character	1		N
25	DEMO3	Character	1		N
26	SHEETNO	Numeric	5		N
27	BATCHNO	Numeric	4		N
<b>** Total **</b>			<b>88</b>		

### 3.2.4 Structure for database: FEO3.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	SDATE	Date	8		N
3	RECDR1	Numeric	2		N
4	RECDR2	Numeric	2		N
5	SRV_NO	Numeric	3		N
6	BEGTIME	Numeric	5	2	N
7	ENDTIME	Numeric	5	2	N
8	OBSTIME	Numeric	5	2	N
9	LOCN	Character	1		N
10	XLOCN	Character	3		N
11	GEARCODE	Numeric	3		N
12	ACTVGR	Numeric	4		N
13	INACTVGR	Numeric	3		N
14	JBGR	Numeric	3		N
15	SHEET	Character	8		N
16	BATCH	Character	6		N
17	SHEETNO	Numeric	5		N
18	BATCHNO	Numeric	4		N
19	DEMO3	Character	1		N
20	DEMO2	Character	1		N
<b>** Total **</b>			<b>77</b>		

### 3.2.5 Structure for database: NFGEAR.S.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	3		N
3	XLOCN	Character	3		N
4	SDATE	Date	8		N
5	FEO1ID	Character	8		N
6	REF_NO	Character	4		N
7	R_CODE1	Numeric	2		N
8	R_CODE2	Numeric	2		N
9	BEG_TIME	Numeric	5	2	N
10	END_TIME	Numeric	5	2	N
11	GEAR_NAME	Character	28		N
12	GEARCODE	Numeric	3		N
13	GRS_SAMPLE	Numeric	4		N
14	GRS_OBSV	Numeric	4		N
15	GRS_REPT	Numeric	4		N
16	GRS_TOTAL	Numeric	4		N
17	REMARKS	Character	40		N
18	BATCH	Character	6		N
19	SHEETNO	Character	8		N
20	JBGR	Numeric	3		N
21	MISSING	Numeric	2		N
** Total **			151		

### 3.3 Description of Database Field

<u>File</u> <u>Name</u>	<u>Field</u> <u>No.</u>	<u>Fields</u>	<u>Field</u> <u>Type</u>	<u>Width</u>	<u>Deci-</u> <u>mal</u>	<u>Description</u>
FEO1	1	SITE	C	4	0	Site code
FEO1	2	LOCN	C	1	0	Location code
FEO1	3	XLOCN	C	4	0	When more than one location
FEO1	4	SDATE	D	8	0	Survey date
FEO1	5	FEO1ID	C	8	0	Used for record control
FEO1	6	FEO1REC	N	4	0	Used for record control
FEO1	7	RECDDR1	N	2	0	1st recorder code
FEO1	8	RECDDR2	N	2	0	2nd recorder code
FEO1	9	BEGTIME	N	5	2	Beginning time for survey

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
FEO1	10	ENDTIME	N	5	2	End time for the day
FEO1	11	HRS_CNT	N	2	0	Time of recording counts
FEO1	12	GEARCODE	N	3	0	Gearcode
FEO1	13	TOT_NOS	N	4	0	Total gear found at that time
FEO1	14	JBGR	N	3	0	Modified gearcode
FEO1	15	GENERATE	C	1	0	Record generated by decision
FEO1	16	MISSING	N	2	0	No.of entries found missing
FEO1	17	SHEET	C	8	0	Used for batch control
FEO1	18	BATCH	C	6	0	Used for batch control
FEO1	19	DEMO1	C	1	0	Used for batch control
FEO1	20	DEMO2	C	2	0	Used for batch control
FEO1	21	SHEETNO	N	5	0	Used for batch control
FEO1	22	BATCHNO	N	4	0	Used for batch control
FEO1	23	DEMO3	C	1	0	Used for batch control
FEO1OTT	1	SITE	C	4	0	Site code
FEO1OTT	2	LOCN	C	1	0	Location code
FEO1OTT	3	XLOCN	C	3	0	Location other than 1st one
FEO1OTT	4	SDATE	D	8	0	Survey date
FEO1OTT	5	FEOIID	C	8	0	Used for record controlling
FEO1OTT	6	FEOIREC	N	4	0	Used for record controlling
FEO1OTT	7	RECDR1	N	2	0	1st recorder code
FEO1OTT	8	RECDR2	N	2	0	2nd recorder code
FEO1OTT	9	FROM_TM	N	5	2	Start time of gear counts
FEO1OTT	10	TO_TM	N	5	2	End time of gear counts
FEO1OTT	11	GEARCODE	N	3	0	Gear code

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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
FEO1OTT	12	TOT_NOS	N	4	0	Total counts for time slot
FEO1OTT	13	JBGR	N	3	0	Modified gearcode
FEO1OTT	14	SHEET	C	8	0	Used for batch control
FEO1OTT	15	BATCH	C	6	0	Used for batch control
FEO1OTT	16	SHEETNO	N	5	0	Used for batch control
FEO1OTT	17	BATCHNO	N	4	0	Used for batch control
FEO1OTT	18	DEMO1	C	1	0	Used for batch control
FEO1OTT	19	DEMO2	C	1	0	Used for batch control
FEO1OTT	20	DEMO3	C	1	0	Used for batch control
FEO2	1	SITE	C	4	0	Site code
FEO2	2	LOCN	C	1	0	Location code
FEO2	3	XLOCN	C	4	0	Location when more than
FEO2	4	SDATE	D	8	0	Survey date
FEO2	5	FEO2ID	C	8	0	Used for record control
FEO2	6	FEO2REC	N	3	0	Used for record control
FEO2	7	RECDR1	N	2	0	1st recorder code
FEO2	8	RECDR2	N	2	0	2nd recorder code
FEO2	9	BEGTIME	N	5	2	Time at which survey begins
FEO2	10	ENDTIME	N	5	2	Time at which survey ends
FEO2	11	GEARUNIT	N	1	0	Gear units
FEO2	12	GEARCODE	N	3	0	Gearcode
FEO2	13	A_HRS	N	5	2	Hours spent fishing
FEO2	14	B_DAYS	N	1	0	Days spent fishing last week
FEO2	15	C_DAYS	N	1	0	Days spent fishing next week
FEO2	16	FSH_NHT	C	1	0	Fishing at night? Y/N
FEO2	17	D_NHTS	N	1	0	Nights spent fishing during last week



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<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
FEO2	18	E_NHTS	N	1	0	Nights spent fishing during next week
FEO2	19	JBGR	N	3	0	Modified gearcode
FEO2	20	MISSING	N	2	0	No.of fields found blanks
FEO2	21	SHEET	C	8	0	Used for batch control
FEO2	22	BATCH	C	6	0	Used for batch control
FEO2	23	DEMO1	C	1	0	Used for batch control
FEO2	24	DEMO2	C	1	0	Used for batch control
FEO2	25	DEMO3	C	1	0	Used for batch control
FEO2	26	SHEETNO	N	5	0	Used for batch control
FEO2	27	BATCHNO	N	4	0	Used for batch control
FEO3	1	SITE	C	4	0	Site code
FEO3	2	SDATE	D	8	0	Survey date
FEO3	3	RECDRI	N	2	0	1st recorder code
FEO3	4	RECDR2	N	2	0	2nd recorder code
FEO3	5	SRV_NO	N	3	0	Survey number
FEO3	6	EGTIME	N	5	2	Time at which survey begins
FEO3	7	NDTIME	N	5	2	Time at which survey ends
FEO3	8	BSTIME	N	5	2	Observed time
FEO3	9	OCN	C	1	0	Location code
FEO3	10	XLOCN	C	3	0	Locations when more than one
FEO3	11	GEARCODE	N	3	0	Gearcode
FEO3	12	ACTVGR	N	4	0	No.of active gear
FEO3	13	INACTVGR	N	3	0	No.of inactive gear
FEO3	14	JBGR	N	3	0	Modified gearcode
FEO3	15	SHEET	C	8	0	Used for batch control
FEO3	16	BATCH	C	6	0	Used for batch control

12

<u>File Name</u>	<u>Field No.</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
FEO3	17	SHEETNO	N	5	0	Used for batch control
FEO3	18	BATCHNO	N	4	0	Used for batch control
FEO3	19	DEMO3	C	1	0	Used for batch control
FEO3	20	DEMO2	C	1	0	Used for batch control
NFGEARS	1	SITE	C	4	0	Site code
NFGEARS	2	LOCN	C	3	0	Location code
NFGEARS	3	XLOCN	C	3	0	Locations when more than one
NFGEARS	4	SDATE	D	8	0	Survey date
NFGEARS	5	FEOIID	C	8	0	Used for record control
NFGEARS	6	REF_NO	C	4	0	Reference no.
NFGEARS	7	R_CODE1	N	2	0	1st recorder code
NFGEARS	8	R_CODE2	N	2	0	2nd recorder code
NFGEARS	9	BEG_TIME	N	5	2	Time at which survey ends
NFGEARS	10	END_TIME	N	5	2	Time at which survey starts
NFGEARS	11	GEAR_NAM	C	8	0	Gearname
NFGEARS	12	GEARCODE	N	3	0	Gearcode
NFGEARS	13	GRS_SAMP	N	4	0	No.of sampled gears
NFGEARS	14	GRS_OBSV	N	4	0	No.of gears observed
NFGEARS	15	GRS_REPT	N	4	0	No.of times gears reported
NFGEARS	16	GRS_TOTA	N	4	0	Total no.of gears
NFGEARS	17	REMARKS	C	40	0	Remarks
NFGEARS	18	BATCH	C	6	0	Used for batch control
NFGEARS	19	SHEETNO	C	8	0	Used for batch control
NFGEARS	20	JBGR	N	3	0	Modified gearcodes
NFGEARS	21	MISSING	N	2	0	No.of fields (value missing)

### 3.4 Description of Survey Forms

Reference number	Survey	Purpose of information on form
FE01	Fishing Effort Survey	Counts of numbers of units of each type of gear fishing during 2 hour periods throughout the day (06.00 - 18.00).
FE01(A)	"	For main river surveys only. Number of units of each type of gear fishing throughout the day. Coverage of site not time bound.
FE02	"	Record of hours, days and nights fished
FE03	CAS	Gear counts recorded during CAS or FES as cross-check of FE01 and for approximate geographical distribution of fishing activity.
NF01	FES	Count of night fishing gears

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### 3.5 Copies of Survey Forms



## FISHING EFFORT QUESTIONNAIRE.

MORNING

Ref No.	Site No.	Locn	Date.	Recorder 1	Code 1	Recorder 2	Code 2	Tot G
FE01	NK25	Z	27.09.93	Jewel	13			

Gear Type			8.00hrs count		10.00hrs count		12.00hrs count	
	Name	Code	Total		Total		Total	
G I L N E T	Current jal	88	16	16	16	16	11	11
	Drifting Monofil Net	282						
	Koi/Fashi/Fashon/Fash	123						
	Chandi jal	65						
	Par, Pangas jal/Fashon	315						
	Kajuli jal/Nagon jal	316						
	Awo jal	324						
S E I N E  N E T	Ber jal/Zagot ber jal	45	1	01	1	01	1	01
	Baoli	306						
	Moi jal	202						
	Dora jal	325						
	Konaber jal	268						
	Deol/Bandh/Chota badai/lathi	89	05	05	05	05	04	04
	Horhori	297						
	Kathi jal / Dolna	175						
	Chabi jal	293						
	Hat panch	276						
	Chapra/Uttar jal	68						
	Satiber jal/Gulti jal	304						
	Gai Dasem	132						
	Kachitana	277						
	Ferra jal	126						
B A G	Beon/Thaga/ Konapatan	285						
	Suti jal	271						
	Ghori jal	320						
L I F T	Veshal/Kora jal	266						
	Dharma jal/Sitki	105						
	Jhali jal	160						
	Jhap jal	319						
	Chota jal	323						
S C O O P	Hat Tana/Sukna/Chak	287						
	Ucha	263						
	Tukri	296						
	Afa/Hat bauli	321						
C	Shangla/ Kharki jal	234						





## FISHING EFFORT QUESTIONNAIRE.

AFTERNOON

Ref No.	Site No.	Locn	Date.	Recorder 1	Code 1	Recorder 2	Code 2	Tot G
FE01	NC25	Z	27.09.93	Jewel	13			

Gear Type			14.00hrs count		16.00hrs count		18.00hrs count	
	Name	Code	Total		Total		Total	
GILL NET	Current jal	88						
	Drifting Monofil Net	282						
	Koi/Fashi/Fashon/Fash	123						
	Chandi jal	65						
	Par, Pangas jal/Fashon	315						
	Kajuli jal/Nagon jal	316						
	Awo jal	324						
SEINE NET	Ber jal/Zagot ber jal	45						
	Baoli	306						
	Moi jal	202						
	Dora jal	325						
	Konaber jal	268						
	Deol/Bandh/Chota badai/lathi	89						
	Horhori	297						
	Kathi jal / Dolna	175						
	Chabi jal	293						
	Hat panch	276						
	Chapra/Uttar jal	68						
	Satiber jal/Gulti jal	304						
	Gai Dasem	132						
	Kachitana	277						
	Ferra jal	126						
BAG	Beon/Thaga/ Konapatan	285						
	Suti jal	271						
	Ghori jal	320						
LIFT	Veshal/Kora jal	266						
	Dharma jal/Sitki	105						
	Jhali jal	160						
	Jhap jal	319						
	Chota jal	323						
SCOOP	Hat Tana/Sukna/Chak	287						
	Ucha	263						
	Tukri	296						
	Afa/Hat bauli	321						
C	Shangla/ Kharki jal	234						

Ref No.	Site No.	Locn	Date.	Recorder 1	Code 1	Recorder 2	Code 2	Tot G
FE01								

[illegible]



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FISHING EFFORT QUESTIONNAIRE (M L OTTER)

Ref No.	Site No	Locn	Date.	Recorder 1	Code 1	Recorder 2	Code 2	Tot G
FE01(A)	NC20	Z	11.12.92	Kanailal	01	Kibria	40	

Survey Times:	From: 0629	Form: 0900	Form: 1353
	To: 0859	To: 1242	To: 1623

Gear Type	Name	Code	Total	Total	Total	Total
G I L L N E T	Current jal	88	1	01	L	02
	Drifting Monofil Net	282			□	04
	Koi/Fashi/Fashon/Fash	123				
	Chandi jal	65				
	Par, Pangas jal/Fashon	315				
	Kajuli jal/Nagon jal	316				
	Awo jal	324				
S E I N E N E T	Ber jal/Zagot ber jal	45				
	Baoli	306				
	Moi jal	202				
	Dora jal	325				
	Konaber jal	268				
	Deol/Bandh/Chota badai/lathi	89				
	Horhori	297				
	Kathi jal/Dolna	175				
	Chabi jal	293				
	Hat panch	276				
	Chapra/Uttar jal	68				
	Satiber jal/Gulti jal	304				
	Gai Dasem	132				
	Kachitana	277				
	Ferra jal	126				
B A G	Beon/Thaga/ Konapatan	285				
	Suti jal	271				
	Ghori jal	320				
L I F T	Veshal/Kora jal	266	1	01	L	02
	Dharma jal/Sitki	105				
	Jhali jal	160				
	Jhap jal	319				
	Chota jal	323				
S C O O P	Hat Tana/Sukna/Chak	287				
	Ucha	263				
	Tukri	296				
	Afa/Hat bauli	321				
C	Shangla/ Kharki jal	234				

Ref No.	Site No.	Locn	Date.	Recorder 1	Code 1	Recorder 2	Code 2	Tot G
FE01(A)								

[illegible]



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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Comments

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Start time	End time
0540	0730

Total number of observations:	03
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Comments
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## 4 FISH MOVEMENT STUDY

### 4.1 List of Databases

01. Form: SAO1 - Fish Hatchling (Savar) Survey  
SAO1.DBF
02. Form: SAO2 - Daily Fish Hatchling (Savar) Survey  
SAO2.DBF
03. Form: SAO4 - Fish Hatchling (Savar) Survey (North Central /North East/  
North West Region)  
SAO4.DBF
04. Form: SSO1 - Savar Survey - Length Frequency Form  
SAVAR1.DBF

### 4.2 Structure of Databases

#### 4.2.1 Structure for database: SAO1.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	DATE	Date	8		N
4	RECDR1	Numeric	2		N
5	RECDE2	Numeric	2		N
6	TOTRECS	Numeric	3		N
7	NETNOS	Numeric	3		N
8	TM_LFTD	Numeric	5	2	N
9	TM_WATER	Numeric	5	2	N
10	POSN_SET	Numeric	1		N
11	SPCODE	Numeric	3		N
12	SPNOS	Numeric	6		N
13	BATCH	Character	6		N
14	BATCHNO	Numeric	2		N
15	REMARK	Memo	10		N
<b>** Total **</b>			<b>62</b>		

4.2.2 Structure for database: SAO2.DBF

Field	Field Name	Type	Width	Dec	Idx
1	SITE	Character	5		N
2	SDATE	Date	8		N
3	RECDR1	Numeric	2		N
4	RECDR2	Numeric	2		N
5	SLNO	Character	6		N
6	NETCODE	Character	3		N
7	TM_SET	Numeric	5	2	N
8	TM_LFTD	Numeric	5	2	N
9	TM_WATER	Numeric	5	2	N
10	CS_DIST	Numeric	2		N
11	DIST_TM	Numeric	3		N
12	NO_REVS	Numeric	3		N
13	REVS_TM	Numeric	3		N
14	NET_DIST	Numeric	2		N
15	BWDB	Numeric	5	2	N
16	DIR_FLOW	Numeric	1		N
17	SMP_PRES	Character	1		N
18	BOTTLES	Numeric	1		N
19	SP_TIME1	Numeric	5	2	N
20	WL_IN1	Numeric	5	2	N
21	WL_OUT1	Numeric	5	2	N
22	PMP_NO1	Numeric	1		N
23	HEIGHT1	Numeric	5	2	N
24	SP_TIME2	Numeric	5	2	N
25	WL_IN2	Numeric	5	2	N
26	WL_OUT2	Numeric	5	2	N
27	PMP_NO2	Numeric	1		N
28	HEIGHT2	Numeric	5	2	N
29	SP_TIME3	Numeric	5	2	N
30	WL_IN3	Numeric	5	2	N
31	WL_OUT3	Numeric	5	2	N
32	PMP_NO3	Numeric	1		N
33	HEIGHT3	Numeric	5	2	N
34	PMP_NO4	Numeric	1		N
35	HEIGHT4	Numeric	5	2	N
36	PMP_NO5	Numeric	1		N
37	HEIGHT5	Numeric	5	2	N
38	PMP_NO6	Numeric	1		N
39	HEIGHT6	Numeric	5	2	N
40	PROCESS	Character	1		N
41	SHEETNO	Numeric	4		N
42	BATCH	Character	6		N
** Total **			155		

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#### 4.2.3 Structure for database: SAO4.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	5		N
2	SDATE	Date	8		N
3	RECDR1	Numeric	2		N
4	RECDR2	Numeric	2		N
5	SLNO	Character	6		N
6	NETCODE	Character	3		N
7	TM_SET	Numeric	5	2	N
8	TM_LFTD	Numeric	5	2	N
9	SPCODE	Numeric	3		N
10	NUMBER	Numeric	6		N
11	REMARKS	Character	60		N
12	SHEETNO	Numeric	4		N
13	BATCH	Character	6		N
<b>** Total **</b>			<b>116</b>		

#### 4.2.4 Structure for database: SAVARI.DBF

Field	Field Name	Type	Width	Dec	Index
1	REF	Character	4		N
2	SITE	Character	4		N
3	POSN	Character	1		N
4	LOCN	Character	1		N
5	RECDR1	Numeric	3		N
6	RECDR2	Numeric	2		N
7	SDATE	Date	8		N
8	NET_NO	Numeric	3		N
9	TIME_LIFT	Numeric	5	2	N
10	TIME_WATR	Numeric	5	2	N
11	SET_POSN	Character	2		N
12	OTHER_INFO	Character	30		N
13	SPCODE	Numeric	3		N
14	TOT_LEN	Numeric	7	2	N
15	STD_LEN	Numeric	7	2	N
16	SHEET	Character	8		N
17	BATCH	Character	6		N
<b>** Total **</b>			<b>100</b>		

### 4.3 Description of Database Fields

<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
SAO1	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
SAO1	2	LOCN	C	1	0	Location code A through E
SAO1	3	DATE	D	8	0	Date of survey in English as DD/MM/YY
SAO1	4	RECDR1	N	2	0	1st Recorder code
SAO1	5	RECDE2	N	2	0	2nd Recorder code
SAO1	6	TOTRECS	N	3	0	Number of record in that form
SAO1	7	NETNOS	N	3	0	No. of nets
SAO1	8	TM_LFTD	N	5	2	Time net set
SAO1	9	TM_WATER	N	5	2	Length of time in water
SAO1	10	POSN_SET	N	1	0	Position in set
SAO1	11	SPCODE	N	3	0	Species code
SAO1	12	SPNOS	N	6	0	Number of species
SAO1	13	BATCHNO	N	2	0	Used for batch control
SAO1	14	REMARK	M	0	0	Remarks if any
SAO2	1	SITE	C	5	0	Site code i.e NC01, NW05, NE23, SW21,,...
SAO2	2	SDATE	D	8	0	Date of survey in English as DD/MM/YY
SAO2	3	RECDR1	N	2	0	1st Recorder code
SAO2	4	RECDR2	N	2	0	2nd Recorder code
SAO2	5	SLNO	C	6	0	Serial number
SAO2	6	NETCODE	C	3	0	Net code
SAO2	7	TM_SET	N	5	2	Time set
SAO2	8	TM_LFTD	N	5	2	Time lifted
SAO2	9	TM_WATER	N	5	2	Length of time in water



<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
SAO2	10	CS_DIST	N	2	0	Distance measured in metre
SAO2	11	DIST_TM	N	3	0	Time in seconds
SAO2	12	NO_REVS	N	3	0	Number of revs
SAO2	13	REVS_TM	N	3	0	Time taken for revs
SAO2	14	NET_DIST	N	2	0	Distance from net top to water surface
SAO2	15	BWDB	N	5	2	Water level (BWDB)
SAO2	16	DIR_FLOW	N	1	0	Direction of flow
SAO2	17	SMP_PRES	C	1	0	Sample preserved labelled? Y/N
SAO2	18	BOTTLES	N	1	0	Number of bottles used for sample
SAO2	19	SP_TIME1	N	5	2	Sluice gate observation time 1
SAO2	20	WL_IN1	N	5	2	Water level-1 inside
SAO2	21	WL_OUT1	N	5	2	Water level-1 outside
SAO2	22	PMP_NO1	N	1	0	Number of times pumps/gate opens at observation-1
SAO2	23	HEIGHT1	N	5	2	Heights-1
SAO2	24	SP_TIME2	N	5	2	-do-
SAO2	25	WL_IN2	N	5	2	-do-
SAO2	26	WL_OUT2	N	5	2	-do-
SAO2	27	PMP_NO2	N	1	0	-do-
SAO2	28	HEIGHT2	N	5	2	-do-
SAO2	29	SP_TIME3	N	5	2	-do-
SAO2	30	WL_IN3	N	5	2	-do-
SAO2	31	WL_OUT3	N	5	2	-do-
SAO2	32	PMP_NO3	N	1	0	-do-
SAO2	33	HEIGHT3	N	5	2	-do-
SAO2	34	PMP_NO4	N	1	0	-do-

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<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
SAO2	35	HEIGHT4	N	5	2	-do-
SAO2	36	PMP_NO5	N	1	0	-do-
SAO2	37	HEIGHT5	N	5	2	Heights-1
SAO2	38	PMP_NO6	N	1	0	-do-
SAO2	39	HEIGHT6	N	5	2	-do-
SAO2	40	PROCESS	C	1	0	Use for processing purposes
SAO2	41	SHEETNO	N	4	0	Sheetno used for batch control
SAO2	42	BATCH	C	6	0	Used for batch control
SAO4	1	SITE	C	5	0	Site code i.e NC01, NW05, NE23, SW21,,...
SAO4	2	SDATE	D	8	0	Date of survey in English as DD/MM/YY
SAO4	3	RECDR1	N	2	0	1st Recorder code
SAO4	4	RECDR2	N	2	0	2nd Recorder code
SAO4	5	SLNO	C	6	0	Serial number
SAO4	6	NETCODE	C	3	0	Code for the nets
SAO4	7	TM_SET	N	5	2	Time net set
SAO4	8	TM_LFTD	N	5	2	Time net lifted
SAO4	9	SPCODE	N	3	0	Species code
SAO4	10	NUMBER	N	6	0	Number of fishes
SAO4	11	REMARKS	C	0	0	Remarks if any
SAO4	12	SHEETNO	N	4	0	Sheetno used for batch control
SAO4	13	BATCH	C	6	0	Used for batch control
SAVAR1	1	REF	C	4	0	Reference
SAVAR1	2	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
SAVAR1	3	POSN	C	1	0	Position in set

<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
SAVAR1	4	LOCN	C	1	0	Location code A through E
SAVAR1	5	RECDR1	N	3	0	1st Recorder code
SAVAR1	6	RECDR2	N	2	0	2nd Recorder code
SAVAR1	7	SDATE	D	8	0	Date of survey in English as DD/MM/YY
SAVAR1	8	NET_NO	N	3	0	Number of nets
SAVAR1	9	TIME_LIF	N	5	2	Time lifted
SAVAR1	10	TIME_WAT	N	5	2	Length of time in water
SAVAR1	11	SET_POSN	C	2	0	Position set
SAVAR1	12	OTHER_IN	C	0	0	Remarks if any
SAVAR1	13	SPCODE	N	3	0	Species code
SAVAR1	14	TOT_LEN	N	7	2	Total length
SAVAR1	15	STD_LEN	N	7	2	Standard length
SAVAR1	16	SHEET	C	8	0	Used for batch control
SAVAR1	17	BATCH	C	6	0	Used for batch control

#### 4.4 Description of Survey Forms

Reference number	Survey	Purpose of information on form
SA01	Fish hatchling/fry studies	Times of fishing (for estimation of fishing effort) by savar nets & pre-identification of hatchlings from catches.
SA02	Fish hatchling/fry studies	Times of fishing by setting savar nets & records of current speed & depth during fishing.
SA04	Hatchling studies for NE region	Times of fishing (for estimation of fishing effort) by savar nets & identification of hatchlings from catches.
SA05	Hatchling studies for NE region	Receipt for the hatchling samples dispatched from NE region to the laboratory at Tangail.
SS01	Fish hatchling/fry studies	Length Frequency Form

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#### 4.5 Copies of Survey Forms

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Ref.	Site	Locn	Recorder 1	Code 1	Recorder 2	Code 2	Tot records
SA01	NC16	A	Zeb-Un-nessa	15	—		06

[illegible]

## DAILY SAVAR SURVEY 1993

Ref.	Site code	Date	Recorder 1	Code 1	Recorder 2	Code 2	Tot records	Serial No.	NCS	173
SA02	NCS 21	11.08.93	SAMAR	71	-	-	-			

[illegible]

## Sluice Gate/Pumphouse Operation:

[illegible]

Note: For direction of water flow use Code:

1. from river to floodplain.
2. from floodplain to river.



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Note 1      Samples to be analysed & results presented in chronological order for each net.

Note 2      If no hatchlings present, the data should still be entered with zero catch.

[illegible]

CCD

Ref.
SA05

The following samples were received at Tangail field station details given below for each sample

Date handed in to Tangail Field Station		Received by	
---	--	-------------	--

[illegible]

Signature of SFS

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Ref	Site	Locn	Recorder 1	Code 1	Recorder 2	Code 2
SS01						
Date	Net No.	Position in set	Time net lifted.	Length of Time in Water	Other information	
10.09.92	03	—	1800	24.00hrs	one vial	

[illegible]

Number of entries:			
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## 5 FEEDING STUDY

### 5.1 List of Databases

01. Form: FSO1 - Feeding Studies - Food Items of Fish

FSO1.DBF

### 5.2 Structure of Databases

#### 5.2.1 Structure for database: FSO1.DBF

Field	Field Name	Type	Width	Dec	Index
1	REGION	Character	2		N
2	MONTH	Character	3		N
3	SP_CODE	Character	3		N
4	RECDR	Character	2		N
5	SITE	Character	4		N
6	LOCN	Character	1		N
7	SDATE	Date	8		N
8	PHY_KTON	Character	1		N
9	H_PLANTS	Character	1		N
10	ZO_KTON	Character	1		N
11	CRU_CEANS	Character	1		N
12	INSECT	Character	1		N
13	AQUATIC	Character	1		N
14	T_TERIAL	Character	1		N
15	P_TERIA	Character	1		N
16	ANNELIDS	Character	1		N
17	MOLLUSCS	Character	1		N
18	FISH_NO1	Character	3		N
19	FISH_NO2	Character	3		N
20	FISH_NO3	Character	3		N
21	FISH_NO4	Character	3		N
22	FISH_NO5	Character	3		N
23	DEBRIS	Character	1		N
24	OTHERS	Character	1		N
25	EMPTY	Character	1		N
26	TOT_INFISH	Character	3		N
27	TOTF_ANALY	Character	2		N
28	COMMENT	Character	50		N
29	SHEET	Character	8		N
30	BATCH	Character	6		N
** Total **			121		



### 5.3 Description of Database Fields

<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Decimals</u>	<u>Description</u>
FSO1	1	REGION	C	2	0	Region, i.e. NC, NE, NW, SW
FSO1	2	MONTH	C	3	0	Month of the year JAN, FEB, MAR, ...
FSO1	3	SP_CODE	C	3	0	Species Code
FSO1	4	RECDR	C	2	0	Recorder code
FSO1	5	SITE	C	4	0	Site code, i.e. NC04, SW11, NE21
FSO1	6	LOCN	C	1	0	Location code, i.e. A, B, C
FSO1	7	SDATE	D	8	0	Date of survey in English as DD/MM/YY
FSO1	8	PHY_KTON	C	1	0	Food category - Phytoplankton/algae
FSO1	9	H_PLANTS	C	1	0	Food category - Higher plants
FSO1	10	ZO_KTON	C	1	0	Food category - Zooplankton
FSO1	11	CRU_CEANS	C	1	0	Food category - Crustaceans
FSO1	12	INSECT	C	1	0	Food category - Insect Y/N
FSO1	13	AQUATIC	C	1	0	Food category Insect - Aquatic
FSO1	14	T_TERIAL	C	1	0	Food category Insect - Terrestrial
FSO1	15	P_TERIA	C	1	0	Food category - Porifera
FSO1	16	ANNELIDS	C	1	0	Food category - Annelids
FSO1	17	MOLLUSCS	C	1	0	Food category - Molluscs
FSO1	18	FISH_NO1	C	3	0	Food category - Fish 1st
FSO1	19	FISH_NO2	C	3	0	Food category - Fish 2nd
FSO1	20	FISH_NO3	C	3	0	Food category - Fish 3rd
FSO1	21	FISH_NO4	C	3	0	Food category - Fish 4th
FSO1	22	FISH_NO5	C	3	0	Food category - Fish 5th
FSO1	23	DEBRIS	C	1	0	Food category - Debris

<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
FSO1	24	OTHERS	C	1	0	Food category - Others
FSO1	25	EMPTY	C	1	0	No food contents (Y/N)
FSO1	26	TOT_INFIS	C	3	0	Total individual fish
FSO1	27	TOTF_ANAL	C	2	0	Total analysed fish
FSO1	28	COMMENT	C	0	0	Remarks
FSO1	29	SHEET	C	8	0	Sheet no used for batch control
FSO1	30	BATCH	C	6	0	Batch no used for batch control

#### 5.4 Description of Survey Forms

Reference number	Survey	Purpose of information on form
FSO1	Feeding Study	Food Items of Fish

22A

### 5.5 Copies of Survey Forms



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NC

## FEEDING STUDIES

FS01	Date	04.01.94	Species Name	M. Cavasios	Code	132	Recorder	SHEREEN
------	------	----------	--------------	-------------	------	-----	----------	---------

Site	FOOD CATEGORY								No. of fish	(TL individual fish)	Comments
	Phytoplankton	H. Plants	Zooplankton	Cruaceae	Aquatic	Terrestrial	Porifera	Annelids	Molluscs	Empty	
06	✓	-	✓	-	✓	-	-	-	✓	-	116
"	-	✓	✓	-	✓	-	-	-	-	-	116

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## 6 DISEASE STUDY

### 6.1 List of Databases

01. Form: DEO1 - Catch Assessment Survey - diseased fish monitoring form  
DEO1.DBF

### 6.2 Structure of Databases

#### 6.2.1 Structure for database: DEO1.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	DEO1ID	Character	8		N
6	RECDR1	Numeric	2		N
7	RECDR2	Numeric	2		N
8	GEARCODE	Numeric	3		N
9	SMP_WS	Character	1		N
10	TOTWT	Numeric	8	3	N
11	SPCODE	Numeric	3		N
12	TOTFISH	Numeric	4		N
13	TOTINFC	Numeric	4		N
14	INF_PCNT	Numeric	6	2	N
15	SEVERITY	Character	35		N
16	MISSING	Numeric	2		N
17	SHEET	Character	8		N
18	BATCH	Character	6		N
19	SHEETNO	Numeric	5		N
20	BATCHNO	Numeric	4		N
<b>** Total **</b>			<b>120</b>		

### 6.3 Description of Database Fields

<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
DEO1	1	SITE	C	4	0	Site code
DEO1	2	LOCN	C	1	0	Location code A....E
DEO1	3	SDATE	D	8	0	Survey date
DEO1	4	STIME	N	5	2	Survey time

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<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
DE01	5	DE01ID	C	8	0	Used for batch control
DE01	6	RECDR1	N	2	0	1st Recorder code
DE01	7	RECDR2	N	2	0	2nd Recorder code
DE01	8	GEARCODE	N	3	0	Gearcode
DE01	9	SMP_WS	C	1	0	Whole catch or subsample ?
DE01	10	TOTWT	N	8	3	Total weight of subsample or whole catch
DE01	11	SPCODE	N	3	0	Fish code
DE01	12	TOTFISH	N	4	0	Total number of fish
DE01	13	TOTINFC	N	4	0	Total number of infected fish
DE01	14	INF_PCNT	N	6	2	% infected
DE01	15	SEVERITY	C	35	0	Severity of infection
DE01	16	MISSING	N	2	0	Codes when field values missed
DE01	17	SHEET	C	8	0	Used for batch control
DE01	18	BATCH	C	6	0	Used for batch control
DE01	19	SHEETNO	N	5	0	Used for batch control
DE01	20	BATCHNO	N	4	0	Used for batch control

#### 6.4 Description of Survey Forms

Reference number	Survey	Purpose of information on form
DE01	CAS	Details of diseased fish in the catch. Completed when diseased fish are observed during CAS.



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## 6.5 Copies of Survey Forms

22

25/6

Ref.	Site	Locn	Date.	Time(24hr)	Recorder 1	Code 1	Recorder 2	Code 2
DE01	NW04		02.02.93	1130	Zabed	37	Mamun	3A

Gearcode	302	Whole catch or Subsample W/S	≤	Total weight of subsample or whole catch	1749 gm
----------	-----	------------------------------	---	--	---------

## Description

[illegible]

## Comments

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## 7 WATER QUALITY STUDY

### 7.1 List of Databases


01. Form: SDO1 - Site Description and Water Quality  
SDO1.DBF
02. Form: SDO2 - Daily Site Weather Report  
SDO2.DBF

### 7.2 Structure of Databases

#### 7.2.1 Structure for database: SDO1.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	SDATE	Date	8		N
3	RECDR1	Numeric	2		N
4	RECDR2	Numeric	2		N
5	LOCN	Character	1		N
6	SECTION	Character	2		N
7	HABITAT	Character	2		N
8	VEGTYP1	Numeric	2		N
9	VEGTYP2	Numeric	2		N
10	VEGTYP3	Numeric	2		N
11	VEGTYP4	Numeric	2		N
12	VEGTYP5	Numeric	2		N
13	VEGTYP6	Numeric	2		N
14	COV_PCNT	Numeric	6	2	N
15	WAT_DPTH	Numeric	6	2	N
16	WIDTH	Numeric	6	2	N
17	WQ_TM1	Numeric	6	2	N
18	WQ_TM2	Numeric	6	2	N
19	WQ_TM3	Numeric	6	2	N
20	WQ_SAT1	Numeric	6	2	N
21	WQ_SAT2	Numeric	6	2	N
22	WQ_SAT3	Numeric	6	2	N
23	WQ_ML1	Numeric	6	2	N
24	WQ_ML2	Numeric	6	2	N
25	WQ_ML3	Numeric	6	2	N
26	WQ_COND1	Numeric	7	2	N
27	WQ_COND2	Numeric	7	2	N
28	WQ_COND3	Numeric	7	2	N
29	WQ_TDS1	Numeric	6	2	N





Field	Field Name	Type	Width	Dec	Index
30	WQ_TDS2	Numeric	6	2	N
31	WQ_TDS3	Numeric	6	2	N
32	WQ_PH1	Numeric	6	2	N
33	WQ_PH2	Numeric	6	2	N
34	WQ_PH3	Numeric	6	2	N
35	WQ_COL1	Numeric	2		N
36	WQ_COL2	Numeric	2		N
37	WQ_COL3	Numeric	2		N
38	WQ_SD1	Numeric	6	2	N
39	WQ_SD2	Numeric	6	2	N
40	WQ_SD3	Numeric	6	2	N
41	WQ_TMP1	Numeric	6	2	N
42	WQ_TMP2	Numeric	6	2	N
43	WQ_TMP3	Numeric	6	2	N
44	MISSING	Numeric	2		N
45	SHEET	Character	8		N
46	BATCH	Character	6		N
47	SHEETNO	Numeric	4		N
48	BATCHNO	Numeric	4		N
** Total **			229		

#### 7.2.2 Structure for database: SDO2.DBF

Field	Field Name	Type	Width	Dec	Index
1	SITE	Character	4		N
2	LOCN	Character	1		N
3	SDATE	Date	8		N
4	STIME	Numeric	5	2	N
5	RECDR1	Numeric	2		N
6	RECDR2	Numeric	2		N
7	WEATHER	Character	2		N
8	WTYPE	Character	1		N
9	WSTART	Numeric	5	2	N
10	WEND	Numeric	5	2	N
11	MISSING	Numeric	2		N
12	SHEET	Character	8		N
13	BATCH	Character	6		N
14	SHEETNO	Numeric	6		N
15	BATCHNO	Numeric	4		N
** Total **			62		

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### 7.3 Description of Database Fields

<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
SDO1	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
SDO1	2	SDATE	D	8	0	Date of survey in English as DD/MM/YY
SDO1	3	RECDR1	N	2	0	1st Recorder code
SDO1	4	RECDR2	N	2	0	2nd Recorder code
SDO1	5	LOCN	C	1	0	Location code A through E
SDO1	6	SECTION	C	2	0	Sub-location code
SDO1	7	HABITAT	C	2	0	Habitat code
SDO1	8	VEGTYP1	N	2	0	Codes for the vegetation type-1
SDO1	9	VEGTYP2	N	2	0	Codes for the vegetation type-2
SDO1	10	VEGTYP3	N	2	0	Codes for the vegetation type-3
SDO1	11	VEGTYP4	N	2	0	Codes for the vegetation type-4
SDO1	12	VEGTYP5	N	2	0	Codes for the vegetation type-5
SDO1	13	VEGTYP6	N	2	0	Codes for the vegetation type-6
SDO1	14	COV_PCNT	N	6	2	Percentage of cover
SDO1	15	WAT_DPTH	N	6	2	Water depth in metre
SDO1	16	WIDTH	N	6	2	Width in metre
SDO1	17	WQ_TM1	N	6	2	Water quality measuring time-1
SDO1	18	WQ_TM2	N	6	2	Water quality measuring time-2
SDO1	19	WQ_TM3	N	6	2	Water quality measuring time-3
SDO1	20	WQ_SAT1	N	6	2	Percentage oxygen saturation-1
SDO1	21	WQ_SAT2	N	6	2	Percentage oxygen saturation-2
SDO1	22	WQ_SAT3	N	6	2	Percentage oxygen saturation-3
SDO1	23	WQ_ML1	N	6	2	Oxygen conc.mg/litre measure-1
SDO1	24	WQ_ML2	N	6	2	Oxygen conc. mg/litre measure-2

29

<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
SDO1	25	WQ_ML3	N	6	2	Oxygen conc. mg/litre measure-3
SDO1	26	WQ_COND1	N	7	2	Conductivity-1
SDO1	27	WQ_COND2	N	7	2	Conductivity-2
SDO1	28	WQ_COND3	N	7	2	Conductivity-3
SDO1	29	WQ_TDS1	N	6	2	TDS-1
SDO1	30	WQ_TDS2	N	6	2	TDS-2
SDO1	31	WQ_TDS3	N	6	2	TDS-3
SDO1	32	WQ_PH1	N	6	2	pH-1
SDO1	33	WQ_PH2	N	6	2	pH-2
SDO1	34	WQ_PH3	N	6	2	pH-3
SDO1	35	WQ_COL1	N	2	0	Water colour code-1
SDO1	36	WQ_COL2	N	2	0	Water colour code-2
SDO1	37	WQ_COL3	N	2	0	Water colour code-3
SDO1	38	WQ_SD1	N	6	2	Secchi disc.-1
SDO1	39	WQ_SD2	N	6	2	Secchi disc.-2
SDO1	40	WQ_SD3	N	6	2	Secchi disc.-3
SDO1	41	WQ_TMP1	N	6	2	Water temperature-1
SDO1	42	WQ_TMP2	N	6	2	Water temperature-2
SDO1	43	WQ_TMP3	N	6	2	Water temperature-3
SDO1	44	MISSING	N	2	0	No.of fields left blank
SDO1	45	SHEET	C	8	0	Used for batch control
SDO1	46	BATCH	C	6	0	Used for batch control
SDO1	47	SHEETNO	N	4	0	Sheetno used for batch control
SDO1	48	BATCHNO	N	4	0	Used for batch control

25

<u>File Name</u>	<u>Field No</u>	<u>Fields</u>	<u>Field Type</u>	<u>Width</u>	<u>Deci- mals</u>	<u>Description</u>
SDO2	1	SITE	C	4	0	Site code i.e NC01, NW05, NE23, SW21,,...
SDO2	2	LOCN	C	1	0	Location code A through E
SDO2	3	SDATE	D	8	0	Date of survey in English as DD/MM/YY
SDO2	4	STIME	N	5	2	Time of survey in 24-hrs clock
SDO2	5	RECDR1	N	2	0	1st recorder code
SDO2	6	RECDR2	N	2	0	2nd recorder code
SDO2	7	WEATHER	C	2	0	Code for weather condition
SDO2	8	WTYPE	C	1	0	Type of weather condition
SDO2	9	WSTART	N	5	2	Starting time
SDO2	10	WEND	N	5	2	End time
SDO2	11	MISSING	N	2	0	Number of fields without entries
SDO2	12	SHEET	C	8	0	Used for batch control
SDO2	13	BATCH	C	6	0	Used for batch control
SDO2	14	SHEETNO	N	6	0	Sheetno used for batch control
SDO2	15	BATCHNO	N	4	0	Used for batch control

#### 7.4 Description of Survey Forms

<b>Reference number</b>	<b>Survey</b>	<b>Purpose of information on form</b>
SD01	FES	Water quality measurements and description of aquatic vegetation.
SD02	FES	Description of prevailing weather conditions.



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### 7.5 Copies of Survey Forms

262

1

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### Details

Section code															
Habitat code															
Type of Vegetation															
% Cover															
Water depth (m)															
Width (metres)															
Water Quality samples	1	2	3			1	2	3			1	2	3		
Time measured															
DO % sat.															
DO mg/litre															
Conductivity															
TDS															
pH															
Water colour															
Secchi Disc (m)															
Temperature °C															



269  
List of Habitats:

MO Main Channel open water  
MS Main river shallow char  
MB Main river mainland bank  
SO Secondary river open channel  
SB Secondary river bank  
KD Khal/Canal/Ditch  
PF Paddy / Floodplain  
BE Beal

List of vegetation:

01	Indurkani	Wolffia Arrhiza
02	Kachuri Pana	Ecchornia Crassipes
03	Khudi Pana	Lemna Major
04	Khudi pana	Lemna Minor
05	Kuti pana	Azolla Pinnata
06	Musakai Pana/Ulkipana	Salvinia Natans
07	Topa pana	Pistia Stratiotes
08	Shapla	Nymphaea lotus
09	Susni Sak	Marisilea quadrifolia
10	Cadoladoi /moladoi	Ceratophyllum Demersum
11	Keorali	Potamogeton crispus
12	Najas	Najas sp
13	Pani morich	Vallisneria Americana
14	Pani Shaibal	Utricularia sp
15	Arail	Leersia Hexandra
16	Bis Kalali	Polygonum hydropiper
17	Malancha	
18	Shalook	Sagittaria sp
19	Kasordam	Jussicea repens
20	Halencha	Enhydra Fluctuans
21	Kalmilata	Ipomaea Reptans

Water Colours

01	Green	Phytoplankton present
02	Dark Green	Phytoplankton vety abundant or bloom
03	Brown	Inorganic suspended solids
04	Dark brown	Humic acids, Decomposing
		Vegetation, Jute Retting
05	Grey	Inorganic Suspended solids
06	Red	Red phytoplankton
07	Clear	Little phytoplankton or solids

Section Code

01 .....  
02 .....  
03 .....

## DAILY SITE WEATHER REPORT

268

Ref.	Site	Locn	Date.	Time(24hr)	Recorder 1	Code 1	Recorder 2	Code 2
SD02	NW 28	Z	05.01.94	0530	ZOHIR	23	—	—

Raining?			Start time	End time	Type
Type:	Light	L	0530	1300	N
	Medium	M			
	Heavy	H			
	No rain	N			

Windy?			Start time	End time	Type
Type	Light	L	0530	1300	N
	Strong	S			
	No wind	N			

Waves?			Start time	End time	Type
Type	Large	L	0530	1300	N
	Small	S			
	No waves	N			

Cloudy?			Start time	End time	Type
Type	Sunny	S	0530	1300	N
	Partly Cloudy	P			
	Cloudy	C			
	No clouds	N			

Foggy?			Start time	End time	Type
Type	Light	L	0530	1300	N
	Deep	D			
	No fog	N			

## 8 ADMINISTRATIVE FORMS

### 8.1 List of Forms

- |     |                  |   |   |
|-----|------------------|---|---|
| 01. | Form: CA10       | - | Daily Monitoring Catch Assessment Surveys   |
| 02. | Form: FE10       | - | Daily Monitoring Fishing Effort Surveys   |
| 03. | Form: GE01       | - | Description of each new gear found. Used for cataloguing databases & documenting gear types by region.  |
| 04. | Form: FR01       | - | Site selection Completed during site identification to assess the suitability of sites to be monitored.   |
| 05. | Form: FR02       | - | Site selection Completed during site identification to assess the fishing activity at sites to be monitored.  |
| 06. | Form: MF01       | - | Administration Records of all forms of different types completed by site by date.   |
| 07. | Form: CAS/FES10a | - | Monitor performance of surveys (CAS/FES)<br>Records of gears counted and number surveyed during CAS in each survey at each site. Checks for any gears counted but not surveyed in CAS or any gears for which CAS was completed but were not observed during FES. This information enables missed gears to be surveyed in survey 2 for that month. |
| 08. | Form: CAS/FES10b | - | Summarises monthly matches of FES and CAS by gear and by site.  |

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## 8.2 Description of Survey Forms

Reference number	Survey	Purpose of information on form
CA10	CAS	Daily Monitoring Catch Assessment Survey
FE10	FES	Daily Monitoring Fishing Effort Survey
GE01	CAS or FES	Description of each new gear found. Used for cataloguing databases & documenting gear types by region.
FR01	Site selection	Completed during site identification to assess the suitability of sites to be monitored.
FR02	Site selection	Completed during site identification to assess the fishing activity at sites to be monitored.
MF01	Administration	Records of all forms of different types completed by site by date.
CAS/FES10a	Monitor performance of surveys (CAS/FES)	Records of gears counted and number surveyed during CAS in each survey at each site. Checks for any gears counted but not surveyed in CAS or any gears for which CAS was completed but were not observed during FES. This information enables missed gears to be surveyed in survey 2 for that month.
CAS/FES10b	"	Summarises monthly matches of FES and CAS by gear and by site



### 8.3 Copies of Survey Forms

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## Daily Monitoring of Catch Assessment Surveys

267

Ref No	Site No	Locn	Date	Survey	RCode 1	RCode 2
CA10	NE01	ABC	FEBRUARY	02	49	06

Gear Name	Code	Number of Gears Sampled		
		Night Catches	Day Catches	Night + Day Catches
Koi jal	194			
Current jal	88			
Chandi jal	65			
Fashi jal	123			
Koni jal	195			
Ber jal	45			
Moi jal	202			
Konaber jal	268			
Zagot ber jal	140			
Deol jal	89			
Kati jal	175			
Kachitane jal	277			
Veshal jal	266		1	
Dharma jal	105			
Dehundi	36			
Atan	11			
Suti	271			
Kharki jaI	184			
Shangla jal	234			
Polo	222			
Darki/Doair	95			
Bana/Doair	24			
Horga	149			
Daun	272			
Sip/Barshi	30			
Borsa sip	278			
Juti	170			
Koch	197			
Jhaki jal	164		1	
Thella jal	255			
Ucha	263			
Katha	270			
By Hand/Dewatering	97			

## Daily Monitoring of Fishing Effort Surveys

280

Ref No	Site No	Locn	Date	Survey	RCode 1	RCode 2
FE10	NC 01	ABC	FEBRUARY	01	49	-

Gear Name	Code	Number of Gears Counted		
		Night Fishing	Day Fishing	Night + Day Fishing
Koi jal	194			
Current jal	88			
Chandi jal	65			
Fashi jal	123			
Koni jal	195			
Ber jal	45		1	
Moi jal	202			
Konaber jal	268			
Zagot ber jal	140			
Deol jal	89			
Kati jal	175			
Kachitane jal	277			
Veshal jal	266		= 9+4	
Dharma jal	105			
Dehundi	36			
Atan	11			
Suti	271			
Kharki jal	184			
Shangla jal	234			
Polo	222			
Darki/Doair	95			
Bana/Doair	24			
Horga	149			
Daun	272			
Sip/Barshi	30			
Borsa sip	278			
Juti	170			
Koch	197			
Jhaki jal	164		2	
Thella jal	255			
Ucha	263			
Katha	270			
By Hand/Dewatering	97			



## GEAR DESCRIPTION FORM

287

Ref.	Site	Locn	Date.	Time (24hr)	Recorder 1	Code 1	Recorder 2	Code 2
GE01								

FAP 17 code (leave blank if not known)			
District			
Habitat		MO MS MB SO SB KD PF BE	
Bengali Name			
English Name			
Description of use			
Group code (if known)			
Size of net/trap include units	Length	Width	
Size of mesh if applicable (mm)			
Main material used	S	M	C K B O
Depth of water (metres)			
No. of people in fishing unit			
Number of boats used			
Type of boat(s) used			
Used night or day or both.	Night	Day	Both
Species of fish caught (use FAP 17 codes)			
Attach sketch or photo			

Code descriptions overleaf:

District codes:

Tangail	95
Pabna	70
Faridpur	40
Jessore	45
Comilla	25
Noakhali	65
Rajshahi	80

Habitat codes:

Main river	open channel	MO
	shallow char	MS
	mainland bank	MB
Secondary river	open channel	SO
	secondary bank	SB
Khal/canal/Ditch		KD
Paddy/floodplain		PF
Beel		BE

Material codes:

Monofilament	S
Multifilament	M
Cotton	C
Knotless nylon	K
Bamboo	B
Other	O

Type of boat:

INFORMATION AND FIELD REPORT  
(for preparation of site maps in comparing sites).

286

Give each site a unique number

Ref.	Site	Locn	Date.	Time(24hr)	Recorder 1	Code 1	Recorder 2	Code 2
FR01								

Description

1. Approximate distance from field station and main town in miles and hours. Include local Village/Thana/District	
2. Ease of approach. Road conditions etc.	
3. Method of approach car/boat/foot.	
4. Type of habitat(s) and size of site available.	
5. Direction of current.	
6. Connections to other water bodies. Names of adjacent rivers, beels, haors, floodplain areas.	
7. Signs of height of flooding - rust marks, water marks, local knowledge.	
8. Describe fishing activity - see overleaf for gears.	
9. Nearest fish market, DOF office and local FRSS village when known.	
10. Licencing arrangements and controlling authority/ person	
11. Local stocking programs.	
12. Type of fishermen: Commercial/Subsistence Men/Women/Children.	
13. What months of the year is fishing possible.	
14. Employment opportunity when fishing not possible.	
15. List similar sites visited.	
16. List any books or maps used in researching this site.	
17. State map coordinates if any available.	

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Gear Usage	(tick boxes to indicate activity)				
1					
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99					
100					

Names of people contacted:  
(Fishermen/Boatmen/Village Headmen)



## Monitoring of Daily Field Documents: CAS and FES

Ref No	Region	Date	Site	Recorder
MF01	NER	26.1.94	NE11	

## Completed Forms Collected by SFS

CA01		Number of Forms Completed	
1	26.1.94	CA01A	
2	27.1.94	CA01B	
3	28.1.94	CA02	
4	29.1.94	CA03	
5		CA04	
6		DE01	
7		FE01	
8		FE02	
9		FE03	
10		FES/CAS10a	
11		FES/CAS10b	
12		FR01	
13		FR02	
14		GE01	
15		SD01	
16		SD02	
17			
18			
19			
20			

Ref No	Site	Month	Year
FES/CAS10a	NEOI	APRIL	1993

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Gear Type	Name	Code	SURVEY 1		SURVEY 2		COMMENTS
			FES DATE	CAS DATE	FES DATE	CAS DATE	
			18.4.93	18.4.93	27.4.93	27.4.93	
			Seen Y/N	How many sampled	Seen Y/N	How many sampled	
G	Current jal	88			3	1+1 (NC)	
I	Drifting Monofilament Net	282					
L	Koi/Fashi jal/Fashon/Fash	123					
N	Chandi jal	65					
E	Par jal/Pangas jal/Fashon	315					
T	Kajuli jal/Nagon jal	316					
	Awo jal	324					
S	Ber jal/Zagot ber jal	45					
	Baoli	306					
E	Moi jal	202					
	Dora jal	325					
I	Konaber jal	268					
N	Deol/Bandh/Chota badai/lat	89					
E	Horhori	297					
	Kathi jal/Dolna	175					
N	Chabi jal	293					
E	Hat panch	276					
T	Chapra/Uttar jal	68					
	Satiberjal/Gulti jal	304					
	Gai Dasem	132					
	Kachitana	277					
	Ferre jal	126					
B	Beon jal/Thaga/Konapatan	285					
A	Suti jal	271					
G	Ghori jal	320					
L	Veshal/Kora jal	266	7	3+1 (NC)	6	3+1 (NC)	
I	Dharma jal/Sitki/Chak toap	105					
F	Jhali jal	160					
T	Jhap jal	319					
	Chota jal	323					
S	Hat Tana/Sukna/Chak jal	287					
C	Ucha	263					
O	Tukri	296					
P	Afa/Hat buali	321					

Ref No	Site	Month	Year
FES/CAS10a	NEO1	APRIL	1993

Gear Type	Name	Code	SURVEY 1		SURVEY 2		COMMENTS
			FES DATE	CAS DATE	FES DATE	CAS DATE	
			18-4-93	18-4-93	27-4-93	27-4-93	
			Seen Y/N	How many sampled	Seen Y/N	How many sampled	
CLP	Shangla jal/Kharki jal	234					
K	Katha jal	270					
A	Boat Katha	314					
T	Horga/Shorgia	149					
H	Kua	302					
A	Kotta	318					
T	Polo	222					
R	Darki/Doiar/Chai/Charo/Ant	95					
A	Deal/Baire	286					
P	Kadum	311					
S	Kakila bana	310					
	Kalsi pata	299					
	Char jal	322					
HO-	Daun	272					
OK/	Sip/Barshi	30					
LI-	Borsa sip/Nol barsi	278					
NES	Tana Barshi/Zomka/Chara	152					
SPR	Juti/Koch	170					
O	Jhaki jal	164					
T	Thella jal	255			3	2	
H	Urani	291					
E	Akra	298					
R	Chunga	301					
S	Thushi/Baim mara	317					
	Hand fishing	307					
	By hand/Dewatering	97					
	Net/Basket+Dewatering	98					



Ref No	Site	Month	Year
FES/CAS10b	NEOI	FEBRUARY	1993

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Gear Type	Name	Code	SURVEY 1 + SURVEY 2		COMMENTS
			FES DATE	CAS DATE	
			11.02.93	11.02.93	
			25.02.93	25.02.93	
			Seen Y/N	How many sampled	
G	Current jal	88			
I	Drifting Monofilament Net	282			
L	Koi/Fashi jal/Fashon/Fash	123		1 (NC)	
N	Chandi jal	65			
E	Par jal/Pangas jal/Fashon	315			
	Kajuli jal/Nagon jal	316			
T	Awo jal	324			
S	Ber jal/Zagot ber jal	45			
	Baoli	306			
E	Moi jal	202	1	2	
	Dora jal	325			
I	Konaber jal	268			
N	Deol/Bandh/Chota badai/lat	89			
E	Horhori	297			
	Kathi jal/Dolna	175			
N	Chabi jal	293			
E	Hat panch	276			
T	Chapra/Uttar jal	68			
	Satiberjal/Gulti jal	304			
	Gai Dasem	132			
	Kachitana	277			
	Ferra jal	126			
B	Beon jal/Thaga/Konapatan	285			
A	Suti jal	271			
G	Ghori jal	320	4	2+2-(NC)	
L	Veshal/Kora jal	266			
I	Dharma jal/Sitki/Chak toap	105			
F	Jhali jal	160			
T	Jhap jal	319			
	Chota jal	323			
S	Hat Tana/Sukna/Chak jal	287			
C	Ucha	263			
O	Tukri	296			
P	Afa/Hat bauli	321			



Ref No	Site	Month	Year
FES/CAS10b			

Gear Type	Name	Code	SURVEY 1 + SURVEY 2		COMMENTS
			FES DATE	CAS DATE	
			Seen Y/N	How many sampled	
CLP	Shangla jal/Kharki jal	234			
K	Katha jal	270			
A	Boat Katha	314			
T	Horga/Shorgia	149			
H	Kua	302			
A	Kotta	318			
T	Polo	222			
R	Darki/Doiar/Chai/Charo/Ant	95			
A	Deal/Baire	286			
P	Kadum	311			
S	Kakila bana	310			
	Kalsi pata	299			
	Char jal	322			
HO-	Daun	272			
OK/	Sip/Barshi	30			
LI-	Borsa sip/Nol barsi	278			
NES	Tana Barshi/Zomka/Chara	152			
SPR	Juti/Koch	170			
O	Jhaki jal	164			
T	Thella jal	255			
H	Urani	291			
E	Akra	298			
R	Chunga	301			
S	Thushi/Baim mara	317			
	Hand fishing	307			
	By hand/Dewatering	97			
	Net/Basket+Dewatering	98			

## 9 LIST OF FISHERIES SAMPLING SITES

### 9.1 North Central Region

SITE	NAME	HABITAT	FCD/I (Inside/Outside)	LENGTH (Km)	AREA (Hectare)
NC02	Pungli River	Secondary river	O	7.45	69.84
NC06	Northern Dhaleswari River	Secondary river	O	16.05	169.09
NC12	Lohajang River	Secondary river	I	9.80	24.50
NC16	Dhaleswari River	Secondary river	O	15.55	276.98
NC21	Gazikhali River	Secondary river	O	13.60	61.20
NC25	Kaliganga River	Secondary river	O	15.62	209.89
NC29	Ichamati River	Secondary river	O	12.00	45.00
NC03	Gala & Borobasalia Khals	Canal	O	4.87	7.06
NC07	Anahula Khal	Canal	O	4.78	6.26
NC10	Indrabelta and Santosh Khals	Canal	I	5.64	7.95
NC13	Deoan and Atia Khals	Canal	I	3.62	3.26
NC17	Zia Khal	Canal	O	4.41	5.47
NC22	Chandrakhali Khal	Canal	O	3.63	6.28
NC26	Mailagi and road side Khals	Canal	O	15.12	50.50
NC30	Sakini and road side Khals	Canal	O	4.70	6.91
NC04	Gazaria Floodplain	Floodplain / Beel	O		123.50
NC08	Anahula Floodplain	Floodplain	O		77.30
NC11	Beltaraksit Floodplain	Floodplain	I		184.70
NC14	Atia/Kumaria Floodplains	Floodplain	I		198.90
NC18	Mailjani Floodplain	Floodplain	O		118.90
NC23	Hazipur Floodplain	Floodplain	O		240.60
NC27	Char Ghior Floodplain	Floodplain	O		208.00
NC31	Gala/Alamdi Floodplain	Floodplain	O		353.80
NC09	Anahula Beel	Beel	O		14.40
NC15	Atia Beel	Beel	I		17.90
NC19	Mailjani Beel	Beel	O		17.90
NC28	Char Ghior Beel	Beel	O		6.80

9.2 North East Region

SITE	NAME	HABITAT	FCD/I (Inside/Outside)	LENGTH (Km)	AREA (Hectare)
NE06	Kushiyara River	Secondary river	O	10.50	95.03
NE11	Old Surma River	Secondary river	O	10.00	83.00
NE16	Surma River	Secondary river	O	13.95	279.00
NE20	Mahasingh River	Secondary river	O	7.91	59.33
NE01	Khorodari Khal	Canal	I	4.05	10.85
NE03	Akali Gang	Canal	I	2.55	10.84
NE07	Juri River	Canal	O	9.55	35.81
NE15	Lumardai Khal	Canal	I	1.65	3.30
NE02	Islampur Floodplain	Floodplain	I		163.10
NE05	Baraimabad Floodplain	Floodplain	I		75.00
NE08	Tekuni Floodplain	Floodplain	O		98.80
NE10	Gobindapur Floodplain	Floodplain	O		78.60
NE14	Asumura Floodplain	Floodplain	I		55.00
NE17	Dapha Floodplain	Floodplain	O		163.00
NE04	Patasinga Beel	Beel	I		215.60
NE09	Tekuni Beel	Beel	O		163.00
NE12	Mouti Beel	Beel	I		40.20
NE13	Karchabrar Beel	Beel	I		56.00
NE18	Dapha Beel	Beel	O		109.40
NE19	Chatal Beel	Beel	O		67.50
NE21	Haor Khal Beel	Beel	O		428.00

## 9.3 South West Region

SITE	NAME	HABITAT	FCD/I (Inside/Outside)	LENGTH (Km)	AREA (Hectare)
SW02	Arial Khan River	Secondary river	O	10.55	316.50
SW03	Bhubaneswar River	Secondary river	O	5.40	27.00
SW07	Kumar River	Secondary river	O	13.35	133.50
SW04	Bogail Khal	Canal	I	3.73	4.36
SW08	Rajandi Khal	Canal	O	4.69	6.10
SW11	Amgramer Khal	Canal	O	5.10	8.01
SW12	Kalabari Khal	Canal	O	4.23	5.20
SW17	Satla—Bagda Khal	Canal	O	9.68	96.80
SW20	Ambola Khal	Canal	I	4.13	4.96
SW05	Kumardanga Floodplain	Floodplain	I		171.70
SW09	Mohipauls Floodplain	Floodplain	O		180.90
SW13	Joisler Floodplain	Floodplain	O		124.50
SW15	Moisler Floodplain	Floodplain	O		147.90
SW18	Chitrapara Floodplain	Floodplain	I		103.00
SW21	Ambola Floodplain	Floodplain	I		107.00
SW22	Satla—Bagda Floodplain	Floodplain	I		202.00
SW06	Chatla Beel	Beel	I		130.00
SW10	Andolir Beel	Beel	O		110.70
SW14	Joisler Beel	Beel	O		113.00
SW16	Moisler Beel	Beel	O		170.40
SW19	Chitrapara Beel	Beel	I		149.00



#### 9.4 North West Region

SITE	NAME	HABITAT	FCD/I (Inside/Outside)	LENGTH (Km)	AREA (Hectare)
NW03	Badai River	Secondary river	I	7.80	39.00
NW06	Ichamati River	Secondary river	I	14.15	95.51
NW07	Kageswari River	Secondary river	I	8.50	31.88
NW11	Chiknai River	Secondary river	I	7.50	28.13
NW14	Baral/Atrai River	Secondary river	O	14.00	177.10
NW15	Karatoya River	Secondary river	O	6.50	53.63
NW19	Old Hurasagar River	Secondary river	I	6.65	16.63
NW25	Baral River	Secondary river	I	18.90	64.73
NW27	Atrai River	Secondary river	O	12.65	87.29
NW08	Santia/Baghabari roadside Khals	Canal	I	13.60	31.82
NW16	Bhagabari & Potajia roadside Khals	Canal	O	7.60	12.77
NW20	Nandina Khal	Canal	I	2.10	1.74
NW29	Kubjipur & Piplagang Khals	Canal	O	8.90	24.48
NW04	Gandahasti Floodplain	Floodplain	I		442.70
NW09	Gangbhanga Floodplain	Floodplain	I		268.50
NW12	Alnar Floodplain/Beel	Floodplain/Beel	I		355.40
NW17	Potajia Floodplain	Floodplain	O		601.60
NW22	Kanaider and Kholishadar Floodplains	Floodplain	I		280.00
NW23	Someshpur Beel	Floodplain	I		135.00
NW26	Muktahar Floodplain	Floodplain	I		89.00
NW28	Haribhanga Floodplain	Floodplain	I		240.10
NW30	Chalan Floodplain	Floodplain	O		554.70
NW05	Gazna Beel	Beel	I		382.00
NW10	Gangbhanga Beel	Beel	I		145.30
NW18	Potajia Beel	Beel	O		167.10
NW21	Nandina Beel	Beel	I		174.90

#### 9.5 Main River

SITE	NAME	HABITAT	AREA (Hectare)
NC01	Jamuna River	Main river	1621.39
NC20	Jamuna River	Main river	1913.09
NC32	Jamuna River	Main river	675.41
NW01	Jamuna River	Main river	1649.99
NW02	Jamuna River	Main river	996.72
NW24	Padma River	Main river	641.30
NC33	Padma River	Main river	1455.51
SW01	Padma River	Main river	1256.53

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# 10 LIST OF CODED SPECIES

## 10 CLUPEIFORMES

### 80 CLUPEIDAE

#### 81 ALOSINAE

86 *Gudusia chapra*

Chapila

89 *Hilsa ilisha*

Ilish

90 *Hilsa toli*

Chandana

#### 83 DOROSOMATINAE

8 *Anodontostoma chacunda*

Koi puti

85 *Gonialosa manmina*

Goni chapila

#### 84 PELLONULINAE

58 *Corica soborna*

Kachki

## 150 ENGRAULIDIDAE

54 *Coilia ramcarati*

Olua

193 *Setipinna phasa*

Phasa

194 *Setipinna taty*

Teli phasa

## 540 PRISTIGASTERIDAE

9 *Aplocheilus panchax*

Kanpona

161 *Pellona ditchela*

Chouka

## 20 CYPRINIFORMES

### 60 CYPRINIDAE

#### 61 CYPRININAE

32 *Catla catla*

Catla

47 *Cirrhinus mrigala*

Mrigel

48 *Cirrhinus reba*

Raik

60 *Ctenopharyngodon idellus*

Gheso carp

62 *Cyprinus carpio*

Karfu

64 *Cyprinus nudus*

Leather carp

27a

65 <i>Cyprinus specularis</i>	Mirror carp
99 <i>Labeo angra</i>	Angrot
100 <i>Labeo bata</i>	Bata
101 <i>Labeo boga</i>	Bhangan
102 <i>Labeo calbasu</i>	Kalbaus
103 <i>Labeo dero</i>	Kursha
104 <i>Labeo gonius</i>	Goni
105 <i>Labeo nandina</i>	Nandina
106 <i>Labeo pangusia</i>	Longu
107 <i>Labeo rohita</i>	Rui
129 <i>Mylopharyngodon piceus</i>	Kalo carp
173 <i>Puntius cosuatis</i>	Kosuati
174 <i>Puntius chola</i>	Chala puti
175 <i>Puntius conchoniis</i>	Canchan puti
176 <i>Puntius gelius</i>	Giliputi
177 <i>Puntius guganio</i>	Mola puti
178 <i>Puntius phutunio</i>	Phutani puti
179 <i>Puntius sarana</i>	Sarputi
180 <i>Puntius sophore</i>	Puti
181 <i>Puntius terio</i>	Teri punti
212 <i>Puntius ticto</i>	Tit puti
970 <i>Puntius gonianotus</i>	Thai sarputi
939 <i>Puntius sp</i>	
187 <i>Osteobrama cotio cotio</i>	Keti



963	<i>Osteochilus neilli</i>	
909	<i>Carp sp</i>	Carp
<b>62 RASBORINAE</b>		
4	<i>Amblypharyngodon microlepis</i>	Mola
5	<i>Amblypharyngodon mola</i>	Mola
12	<i>Aspidoparia jaya</i>	Piali
13	<i>Aspidoparia morar</i>	Piali
17	<i>Barilius barila</i>	Barali
18	<i>Barilius barna</i>	Bani Koksa
21	<i>Barilius shacra</i>	Koksa
218	<i>Barilius evezardi</i>	
22	<i>Barilius tileo</i>	Tila koksa
20	<i>Raiamas bola</i>	Bhol
67	<i>Danio dangila</i>	Nipati
68	<i>Danio devario</i>	Chebli
967	<i>Danio sp</i>	
69	<i>Brachydanio rerio</i>	Anju
75	<i>Esomus danricus</i>	Darkina
182	<i>Rasbora daniconius</i>	Darkina
183	<i>Rasbora elanga</i>	Sephatia
184	<i>Rasbora rasbora</i>	Leuzza darkina
<b>63 GARRINAE</b>		
59	<i>Crossocheilus latius</i>	Kalabata



209  
**64 LEUCISINAE**

11 *Aristichthys nobilis* Bighead carp

91 *Hypophthalmichthys molitrix* Silver carp

**65 CULTRINAE**

43 *Chela cachius* Chep Chela

44 *Chela laubuca* Kash Khaira

965 *Chela sp*

154 *Securicula gora* Chora chela

188 *Salmostoma bacaila* Katari

189 *Salmostoma phulo* Fulchela

**70 COBITIDAE**

**71 COBITINAE**

1 *Pangio pangia* Panga

109 *Lepidocephalus berdmorei* Puiya

110 *Lepidocephalus guntea* Gutum

111 *Lepidocephalus irrorata* Puiya

217 *Lepidocephalus thermalis* Puiya

219 *Lepidocephalus annandalei* Puiya

198 *Somileptes gongota* Gharpoia

941 *Neoeucirrhichthys maydelli* Gutum

**72 BOTIINAE**

28 *Botia dario* Rani

29 *Botia lohachata* Putul

951 *Botia sp*

280

<b>500 PSILORHYNCHIDAE</b>	
171 <i>Psilorhynchus balitora</i>	Balitora
172 <i>Psilorhynchus sucatio</i>	Titari
966 <i>Psilorhynchus sp</i>	
<b>530 BALITORIDAE</b>	
<b>531 NEMACHEILINAE</b>	
139 <i>Nemacheilus botia</i>	Balichata
140 <i>Nemacheilus corica</i>	Koirka
142 <i>Nemacheilus scaturigina</i>	Dari
216 <i>Nemacheilus zonalternans</i>	
<b>30 ANGUILLIFORMES</b>	
<b>20 ANGUILLIDAE</b>	
7 <i>Anguilla bengalensis</i>	Bamosh
<b>220 MORINGUIDAE</b>	
125 <i>Moringua raitaborua</i>	Rata boura
<b>250 OPHICHTHIDAE</b>	
<b>251 OPHICHTHINAE</b>	
163 <i>Pisodonophis boro</i>	Kharu
<b>40 OSTEOGLOSSIFORMES</b>	
<b>41 NOTOPTEROIDEI</b>	
<b>420 NOTOPTERIDAE</b>	
144 <i>Notopterus chitala</i>	Chital
145 <i>Notopterus notopterus</i>	Foli
<b>60 SILURIFORMES</b>	
<b>30 BAGRIDAE</b>	
24 <i>Batasio batasio</i>	Tengra
25 <i>Batasio tengana</i>	Tengra
130 <i>Aorichthys aor</i>	Ayre
135 <i>Aorichthys seenghala</i>	Guizza

202

131 <i>Mystus bleekeri</i>	Golsha tengra
132 <i>Mystus cavasius</i>	Kabashi
133 <i>Mystus gulio</i>	Nuna tengra
134 <i>Mystus menoda</i>	Ghagla
136 <i>Mystus tengra</i>	Bajari tengra
137 <i>Mystus vittatus</i>	Tengra
957 <i>Mystus punctatus</i>	Gagur
949 <i>Mystus sp</i>	
186 <i>Rita rita</i>	Rita
942 <i>Rama chandramara</i>	Laia
<b>120 CLARIIDAE</b>	
49 <i>Clarias batrachus</i>	Magur
50 <i>Clarias gariepinus</i>	African magur
<b>190 HETEROPNEUSTIDAE</b>	
88 <i>Heteropneustes fossilis</i>	Shingi
<b>270 PLOTOSIDAE</b>	
165 <i>Plotosus canius</i>	Gang Magur
<b>320 SCHILBEIDAE</b>	
<b>321 AILLINAE</b>	
2 <i>Ailia coila</i>	Kajuli
3 <i>Ailia punctata</i>	Kajuli
<b>322 SCHILBEINAE</b>	
51 <i>Clupisoma garua</i>	Ghaura
52 <i>Clupisoma naziri</i>	Muri Bacha
76 <i>Eutropiichthys vacha</i>	Bacha
169 <i>Pseudeutropius atherinoides</i>	Batasi
196 <i>Silonia silondia</i>	Shillong

330 SISORIDAE

16	<i>Bagarius bagarius</i>	Baghair
74	<i>Erethistes pussilus</i>	Kutakanti
77	<i>Gagata cenia</i>	Kauwa
78	<i>Gagata gagata</i>	Gang tengra
79	<i>Gagata nangra</i>	Gang tengra
80	<i>Gagata viridescens</i>	Gang tengra
81	<i>Gagata youssoufi</i>	Gang tengra
84	<i>Glyptothorax telchitta</i>	Telchitta
958	<i>Glyptothorax sp</i>	Lal moina
87	<i>Hara hara</i>	Kutakanti
197	<i>Sisor rhabdophorus</i>	Sisor

400 SILURIDAE

147	<i>Ompok bimauculatus</i>	Kani pabda
148	<i>Ompok pabda</i>	Madhu pabda
944	<i>Ompok pabo</i>	Pabda
220	<i>Ompok sp</i>	
209	<i>Wallagu attu</i>	Boal

480 CHACIDAE

33	<i>Chaca chaca</i>	Cheka
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570 PANGASIIDAE

158	<i>Pangasius pangasius</i>	Pangas
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580 ARIIDAE

26	<i>Batrachcephalus mino</i>	Katabukha
152	<i>Osteogeneiosus militaris</i>	Apuia
199	<i>Arius gagora</i>	Gagla



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<b>640 AMBCYCIPITIDAE</b>	
955 <i>Amblyceps mangois</i>	Magur
<b>650 OLYRIDAE</b>	
962 <i>Olyra longicauda</i>	
<b>70 CYPRINODONTIFORMES</b>	
<b>71 EXOCOETOIDEI</b>	
<b>50 BELONIDAE</b>	
210 <i>Xenentodon cancala</i>	Kaikka
<b>180 HEMIRAMPHIDAE</b>	
92 <i>Hyporhamphus gaimardi</i>	Ek Thota
964 <i>Dermogenys pusillus</i>	Ke Thota
<b>72 ADRIANICHTHYOIDEI</b>	
<b>560 ORYZIIDAE</b>	
214 <i>Oryzias melastigma</i>	Kanpona
<b>80 SYNGNTHIFORMES</b>	
<b>340 SYNGNATHIDAE</b>	
93 <i>Ichthyocampus carce</i>	Kumirer khil
961 <i>Microphis deocata</i>	
<b>90 SYNBRANCHIFORMES</b>	
<b>350 SYNBRANCHIDAE</b>	
124 <i>Monopterusuchia</i>	Kuchia
149 <i>Ophisternon bengalense</i>	Bamosh
<b>100 SCORPAENIFORMES</b>	
<b>101 PLATYCEPHALOIDEI</b>	
<b>260 PLATYCEPHALIDAE</b>	
164 <i>Platycephalus indicus</i>	Mur bailla

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**110 PERCIFORMES**

**111 PERCOIDEI**

**130 CICHLIDAE**

150 *Oreochromis mossambica*

Tilapia

151 *Oreochromis nilotica*

Nilotica

**200 LOBOTIDAE**

112 *Lobotes surinamensis*

Samudra koi

**240 NANDIDAE**

**241 NANDINAE**

138 *Nandus nandus*

Bheda

**310 PRISTOLEPIDAE**

**311 BADINAE**

15 *Badis badis*

Napit koi

**360 SCIAENIDAE**

95 *Johnius coitor*

Koitor

155 *Pama pama*

Poa

**380 SCATOPHAGIDAE**

191 *Scatophagus argus*

Bishtara

**390 SILLAGINIDAE**

195 *Sillaginopsis panijus*

Tular dandi

**410 LEIOGNATHIDAE**

108 *Leiognathus equulus*

Tak chanda

**520 AMBASSIDAE**

35 *Chanda baculis*

Chanda

36 *Chanda nama*

Nama Chanda

37 *Chanda ranga*

Lal chanda

910 *Chanda sp*

Chanda

256  
**112 CHANNOIDEI**

**110 CHANNIDAE**

38 <i>Channa barca</i>	Tila shol
39 <i>Channa marulius</i>	Gajar
40 <i>Channa orientalis</i>	Cheng
41 <i>Channa punctatus</i>	Taki
42 <i>Channa striatus</i>	Shol

**113 MUGILIOIDEI**

**230 MUGILIDAE**

126 <i>Liza subviridis</i>	Bata
127 <i>Liza melinoptera</i>	Bata
128 <i>Liza parsia</i>	Bata
922 <i>Liza sp</i>	
185 <i>Rhinomugil corsula</i>	Khorsula
923 <i>Sicamugil cascasia</i>	

**114 POLYNEMOIDEI**

**300 POLYNEMIDAE**

167 <i>Polynemus paradiseus</i>	Tapasi
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**115 GOBIOIDIE**

**140 ELEOTRIDAE**

70 <i>Eleotris fusca</i>	Budh Bailla
71 <i>Eleotris lutea</i>	Kuli

**170 GOBIIDAE**

**171 APOCRYPTEINAE**

10 <i>Apocryptes bato</i>	Chiring
27 <i>Boleophthalmus boddarti</i>	Dahuk
31 <i>Scartelaos histophorus</i>	Dahuk
159 <i>Parapocryptes batooides</i>	Dali chewa
170 <i>Pseudapocryptes lanceolatus</i>	Chewa

<b>172 GOBIINAE</b>	
14 <i>Awaous stamineus</i>	Bele
952 <i>Awaous grammepomus</i>	Nonda Baila
940 <i>Awaous sp</i>	
30 <i>Brachygobius nunus</i>	Nunabailla
83 <i>Glossogobius giurus</i>	Bailla
<b>590 GOBIOIDIDAE</b>	
146 <i>Odontamblyopus rubicundus</i>	Lal chewa
202 <i>Taenioides buchanani</i>	Raja chewa
<b>600 TRYPACHENIDAE</b>	
208 <i>Trypauchen vagina</i>	Sada chewa
<b>117 ANABANTOIDEI</b>	
<b>10 ANABANTIDAE</b>	
6 <i>Anabas testudineus</i>	Koi
<b>40 BELONTIIDAE</b>	
<b>41 MACROPODINAE</b>	
61 <i>Ctenops nobilis</i>	Neftani
<b>42 TRICHOGASTERINAE</b>	
55 <i>Colisa fasciatus</i>	Khalisha
56 <i>Colisa lalia</i>	Lal Khalisha
57 <i>Colisa sota</i>	Khalisha
211 <i>Colisa labiosus</i>	Khalisha
<b>118 MASTACEMBELOIDEI</b>	
<b>210 MASTACEMBELIDAE</b>	
121 <i>Macrognathus aculeatus</i>	Tara baim
122 <i>Mastacembelus armatus</i>	Baral baim
123 <i>Macrognathus pancalus</i>	Guchi



119 STROMATEOIDEI

370 STROMATEIDAE

156 *Pampus argenteus*

Fali chanda

157 *Pampus chinensis*

Rup chanda

130 TETRAODONTIFORMES

131 TETRAODONTOIDEI

460 TETRAODONTIDAE

45 *Chelonodon fluviatilis*

Potka

203 *Tetraodon cutcutia*

Potka

120 PLEURONECTOIDEI

121 SOLEODEI

610 CYNOGLOSSIDAE

953 *Cynoglossus cynoglossus*

Khongi

954 *Cynoglossus sp*

620 SOLEIDAE

956 *Euryglossa orientalis*

969 *Euryglossa pan*

Kathal pata

50 RAJIFORMES

51 MYLIOBATIDOIDEI

630 DASYATIDAE

968 *Himantura sp*

Shangus

900 OTHERS

931 *Prawn sp*

Chingri/Icha

113 *Machrobrachium birmanicus* (prawn)

Chingri Thengua

114 *Machrobrachium lammariei* (prawn)

Kunchu icha

117 *Machrobrachium styliferus* (prawn)

Gura icha

118 *Machrobrachium villosimanus* (prawn)

Chingri dimua

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119 <i>Macrobrachium malcolmsonii</i> (prawn)	Chingri chotka
120 <i>Macrobrachium rosenbergii</i> (prawn)	Golda
160 <i>Paratelphusa sp</i> (crab)	Kanta kakra
168 <i>Potamon</i> (crab)	Kakra
945 <i>Crab sp</i>	Kakra
207 <i>Trionyx gangeticus</i> (turtle)	Kachhim
46 <i>Chitra indica</i> (turtle)	Chhim Kachhim
97 <i>Kachuga tectum</i> (turtle)	Kori Kaitya
98 <i>Kachuga smithi</i> (turtle)	Vital Kaitya
946 <i>Turtle</i>	Dur kasim
500 <i>Platanicus Gangeticus</i> (Dolphin)	Sishu

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## 11 LIST OF CODED FISHING GEARS

Gear Type	Name	Code	Description
Gill Net	Current jal(Stationary)	88	Monofilament fixed gill net, usually small mesh
	Current jal(Drifting)	282	Monofilament drifting gill net, usually top set, any mesh size
	Koi jal	123	Multifilament fixed gill net, usually small mesh
	Chandi jal	65	Multifilament drifting gill net, usually top set, any mesh size
	Par jal	315	Multifilament drifting gill net, usually bottom set, large mesh
	Kajuli jal	316	Multifilament drifting gill net, usually bottom set, small mesh
	Awo jal	324	Multifilament fixed gill net set in zig-zag pattern to catch large fish
	Foot jal	327	Very small gill set horizontally at surface in shallow water
	Gai Dasem	132	Drifting net used in rivers, has pockets at base
Seine Net	Ber jal	45	Seine net: small, medium or large size
	Baoli jal	306	Medium sized seine net pulled by 2 ropes
	Moi jal	202	Small drag net with pockets at base
	Dora jal	325	Similar to moi jal but pulled by 2 long ropes
	Konaber jal	268	Seine net with pocket at one end
	Dhor jal	89	Small seine usually pulled by 2 men by sticks on each end of net
	Horhori	297	Seine net with a series of large pockets along net
	Kathi jal	175	Seine net with a series of vertical sticks along net
	Chabi jal	293	Seine/gill net pulled to shore, often used with polo traps
	Hat panch	276	Medium size seine pulled at each end by one man while man in boat beats water to drive fish into net
	Satiber jal	304	Seine net with a series of pockets at base
	Kachitana	277	Type of lift net hung from boat on floodplain or beel. Net used with drag rope to drive fish into net.
	Ferra jal	126	Drag rope used to drive fish into gill net/seine
Bag Net	Thaga	285	Barrier across river with bag nets set perpendicular to it
	Suti jal	271	Single bag net staked to river bed
	Ghori jal	320	Barricade/fence with nets set in gaps to trap fish
	Bhuti jal	328	Clap net on bamboo frame hung from boat anchored in a gap of barrier fence
Lift Net	Veshal	266	Triangular lift net on large bamboo frame
	Dharma jal	105	Square or round lift nets on bamboo pole
	Jhali jal	160	Small veshal used on main rivers at night for prawns
	Jhap jal	319	Boat lift net: lifted at 4 corners by men in boats
	Chota jal	323	Gill net fixed horizontally on bottom to catch fish by spines
	Dara jal	329	Lift net and barrier used in canals or small rivers
Scoop Net	Hat Tana	287	Oval or triangular scoop nets used with pole and rope or by hand
	Ucha	263	Basket scoop on pole used by hand
	Tukri	296	Small basket scoop used by hand
	Afa/Hat bauli	321	Large thella jal, large mesh, used on boat
	Uttar jal	68	Like a cast net but hung from a boat drifting along river and lifted to catch fish
Clap Net	Shangla jal	234	Multifilament drifting bag net on bamboo frame boat used for hilsa fishing
FAD	Katha	270	Submerged brush shelter used to attract fish
	Boat Katha	314	Submerged boat filled with branches used to attract fish
	Horgra	149	Submerged basket filled with branches used to attract fish
	Kua	302	Fish pit on floodplain, invariably contains brush shelter



Gear Type	Name	Code	Description
Traps	Polo	222	Bell-shaped trap used to catch fish by hand
	Doiar trap	95	Small, oval or box traps used for prawns or small fish
	Deal	286	Larger trap, bilaterally divided to catch fish on 2 sides of bana
	Kadum trap	311	Large box traps used to catch larger fish e.g. Koi, Taki
	K... bana	310	Bamboo fence pulled downstream to trap fish in small area
	Katra	326	Active trap: fish speared after entering trap
	Kalsi pata	299	Clay pot used to trap fish set in bank side.
	Kotta	318	Bunded area on floodplain used to trap fish as water recedes
	Char jal	322	Tidal fence trap
	Kharia/Kore	330	Fence trap used on floodplain during flood recession
	Malai pata	331	Coconut shell drilled with holes and baited to catch small fish
	Patar savar	332	Large active fence trap used to surround fish on floodplain
Hook/Lines	Tui	334	Small polo-type trap used to catch fish in mud on floodplain
	Daun	272	Long line: many hooks set at intervals on one line
	Sip	30	Rod and line : usually one hook per line
	Nol barsi	278	Hook & line attached to bamboo floats. Many floats/hooks may be joined along line
Spear	Tana barsi	152	Hand line (no rod) from bank or boat with or without groundbait
	Juti	170	Spears of various types: fixed or detachable barbs
Other	Jhaki jal	164	Multifilament circular net thrown by hand
	Thella jal	255	Small triangular push net set on bamboo frame
	Urani	291	Various barrier nets/fences used to catch jumping fish.
	Akra	298	Pole with metal hooks used to catch mud-dwelling fish e.g. baim
	Chunga	301	Hollow bamboo rod shelter used to attract baim
	Thushi	317	Cloth/basket traps used to drive baim into them
	Hand fishing	307	Picking fish by hand but without dewatering
	By hand/Dewatering	97	Empty water and catch fish by hand in mud
	Net/Basket+Dewatering	98	Empty water through an outlet where net or basket used to trap fish
	Nimbaich	335	Large scale fishing by whole village using many different gears
	Canal dewatering	336	Cross dam a large section of canal empty water by pumping or by other means and catch fish by various methods.

## 12 EXTRACTING DATABASES

The fisheries database files are in dBase IV format. These are zipped using the ARJ file compression utility. Each database file is zipped into one file and the name of the file is given as the zipped filename. Only the files in katha/kua socioeconomic data are exception.

Following is the list of zip files -

CAO1.EXE	-	zip file of CAO1.DBF
CAO1A.EXE	-	CAO1A.DBF
CAO1B.EXE	-	CAO1B.DBF
CAO2.EXE	-	CAO2.DBF
CAO3_S2.EXE	-	CAO3_S2.DBF
CAO3_S4.EXE	-	CAO3_S4.DBF
CAO4.ARJ	-	CAO4.DBF
KATHA.FXE	-	Katha socioeconomic files
KUA.EXE	-	Kua socioeconomic files
FEO1.EXE	-	FEO1.DBF
FEO1OTT.EXE	-	FEO1OTT.DBF
FEO2.EXE	-	FEO2.DBF
FEO3.EXE	-	FEO3.DBF
NFO1.EXE	-	NFGEARS.DBF
SDO1.EXE	-	SDO1.DBF
SDO2.EXE	-	SDO2.DBF
DEO1.EXE	-	DEO1.DBF
SAO1.EXE	-	SAO1.DBF & SAO1.DBT
SAO2.EXE	-	SAO2.DBF
SAO4.EXE	-	SAO4.DBF
SAVAR1.EXE	-	SAVAR1.DBF
FSO1.EXE	-	FSO1.DBF
FISHCODE.EXE	-	FISHCODE.DBF & FISHCODE.DBT
SITECODE.EXE	-	SITECODE.DBF & SITECODE.DBT
GEARCODE.EXE	-	GEARCODE.DBF
ARJ.EXE	-	utility to zip and unzip files

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To unzip the files with EXE extension, please copy the zipped files in their respective directories and at the *dos* prompt type in the filename and press enter. When the compression utility prompts whether to continue extraction press 'Y'. For example -

```
c:\cas>caol          <enter>
```

CAO4.DBF has been zipped in two volumes and the files are marked as CAO4.ARJ (DISK1) and CAO4.A01 (DISK2). Insert the CAO4.ARJ disk first and when the utility asks for the second disk insert CAO4.A01. The ARJ utility is provided with CAO4.A01. To unzip, please use the following command at the *dos* prompt -

```
arj a:\cao4 /va      <enter>
```



