

**APPENDIX I**

**COST EFFECTIVENESS**

**OF FISHING GEARS USED IN THE BEEL**

**FISHERIES OF ASSAM**

**(QUESTIONNAIRE)**

**Section I**

**1. What are the different types of gears and fishing methods commonly used in different seasons in the beels and the level of CPGH of each type of gear use?**

Date of survey

Name of the beel

District name

Types of gears operated in the beel

Seasonal variation of gears

Pre-monsoon

Monsoon

Post-monsoon

Retreating monsoon

Types of indigenous fishing devices (if any)

'If yes, specify with modus operandi'

Fish species composition (Gear wise)

## Section II. A

**2. What are the types of gears that are economically effective to recover all the cost of labor (i.e. fishermen)?**

Date of Survey

Name of the beel

Type of gear

Number of operation/gear/day

Number of operating days/month

Number of operating days/year

Number of labor used for operation

Life span of the gear

Whether boat needed for fishing

(If yes, number of boat needed for operation of the gear)

Life span of boat (if used)

Capital Investment (Rs.)

Cost of gear

Cost of boat

Any other cost

Repairing cost (Rs.)

Gear repairing

Boat repairing

Rate of daily wages of labor (Rs)

Total catch/operation (Kg), Species wise

Total catch/day (Kg), Species wise

Total catch/month (Kg), Species wise

Total catch/year (Kg), Species wise

Price of fish species at beel site (Rs. per Kg)

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## **Section II. B**

### **(Cost effectiveness of Katal fishing)**

Date of survey

Name of the beel

Number of katal installed /year

Number of fishing of katal/year

Number of labor needed for operation

Number of bamboo needed for installation

Types of gears used for fishing the katal

Number of used in fishing

Installation cost (Rs.)

    Cost of gear (Rs.)

    Cost of boats (Rs.)

Life span of gear

Life span of boat

Repair cost of gears/year (Rs.)

Repair cost of boat/year (Rs.)

Wage of labor/day

Cost of tree stumps needed for installation

Total catch (kg)/year (Species wise)

Catch ratio (Major : Intermediate)

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**Section III. A**

**3. What are the different mesh sizes of gears commonly used in the beel fisheries and their level of CPGH?**

**For gill nets**

Date of survey

Name of the gear

Number of persons engaged in fishing

Hours of operation

Number of nets in the fishing party

Number of pieces in net with dimension and mesh size

(Dimension of each piece by length and width in meter)

Total catch (Species wise)

Average weight of fishes in net (Species wise)

**For nets other than gill nets**

Date

Type of gear

Dimension of net

Mesh size of the net

Number of fishermen engaged in fishing

Duration of each haul

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Species composition (Kg)	Catch per operation (Weight per haul)	Av. Catch/haul
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1.

2.

3.

Etc.

Miscellaneous

Total.

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## Section IV

**4. How much traditional the gears of Assam which are being in use in different beels?**

Date of survey

Name of beel

District name

Name of fisherman

Age of fisherman

Since when the fisherman using the gear ?

Since when his father/fore father used the gear ?

The origin of the gear is whether indigenous or not

(If not, specify the name of the state/country)

Any structural change in the gear

(If yes, specify the changes)

Any change in the efficiency of the gear

(If yes, specify the level of efficiency in earlier days)

## Section V

### RESEARCH HYPOTHESIS I

**H<sub>0</sub>:** The level of effectiveness of gears varies across the different beels of Assam - i.e. if one type of gear is effective in a particular beel, the same may not be effective in the other beels. As such the level of effectiveness is influenced by the types of species available, their density and the hydrological condition of the beel.

**H<sub>1</sub>:** The levels of effectiveness of various gears remain same in all the beels under study.

Date of survey

Name of beel

District name

Indicate your opinion about the main cause, which influence the level of effectiveness of a gear.

	High	+2	+1	0	-1	-2	Low
Fish species available		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fish species density		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hydrological conditions		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## Section VI

### RESEARCH HYPOTHESIS II

**H<sub>0</sub>: The recommended mesh sizes of different gears are the most effective one for the beel fisheries of Assam and there is no significant variation in the level of effectiveness across the different beels of Assam.**

**H<sub>1</sub>: The mesh sizes other than the recommended one are the most effective for the beel fisheries of Assam and the level of effectiveness varies from beel to beel.**

Date of survey

Name of the beel

District name

Name of the gear

Mesh size of the gear

Level of effectiveness

Highly effective (+++)

Moderately effective (++)

Least effective (+)

Not effective (0)

Harmful (-)

Level of CPGH (Study of CPGH was carried out with the help of questionnaire of Section III.A and B.)