



# Training Module of Fisheries Catch Assessment Survey

	<p>Fisheries Resources Survey System Department of Fisheries, Bangladesh Dhaka.</p>	
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## Chapter 4 : Beel Fisheries

Purpose of the catch assessment survey for the beel fisheries is to collect sample catch data of beel as for estimating the annual total catch of beels by districts and by species.

### 1. Selection of sample Beel

Two sample beels should be selected for each Upazila. The selected two beels must be representative for that Upazila in terms of fish production, condition, management, fishing practice etc. It could be followed that one beel is greater than 20 acres and another less than 20 acres. Fingerlings have been releasing under different DOF's programs and projects. Besides, leaseholder or different cooperatives take initiative to release fingerlings to beels. So, one beel should be selected from natural beel and one beel from stocked beel/beel nursery where fingerlings have been stocked. On the other hand, one beel has to be selected from productive beel and another from less productive.

### 2. Physical Condition of Beel & Information

Identification, physical condition and general information has to be collected following format Beel-1. During visiting of beel, the responsible person for data collection has to interview with leaseholder, cooperative, manager of the fishing and fishers to accumulate information of beel. Beel area, management, no. of fishing unit, fishers, no. of gear & type, no. of boat, no. of katta etc. should be incorporated to this form.

### 3. Catch Data Collection

Beel fishery is being done usually by two ways as Katta fishing and other fishing, where fish is caught by gear & other units.

#### A. Other fishing :

- During the visit the sample fishing beel, the Officer has to collect data on fish catch by species wise once in a month during fishing period of beel.
- He has to collect data on the visiting day and also previous day (Format Beel-2).
- Sample unit of fishing has to be selected for each type of gear.
- Estimate average production of two days.
- Gear wise total production has to estimated (Average production x Raising Factor)
- Total catch of sample day' has to be estimated (Format Beel-3) for all gears.
- Total catch for the whole season on the basis of total no. of fishing days and sample data has to be estimated (Format Beel - 4)

#### B. Katta Fishing :

- At stage of declining water of beel, katta fishing usually started.
- Firstly, total katta has to be listed.
- Sample size of katta is to determined for collection information.
- Total catch has to be estimated by using Raising Factor (Format Beel -5)

### 4. Estimation of Annual Production :

Annual total fish production can be estimated from (Format Beel-6) other fishing and katta fishing.

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**CATCH ASSESSMENT SURVEY OF BEEL**  
*(Identification and general information of Beel)*

1. District----- 2. Upazila-----  
 3. Union----- 4. Village-----  
 Year----- Name of Officer-----

5. General Information:

a)	Name of Beel	-----
b)	Water area (Ha)	Winter season -----
		Rainy season -----
		Dry season -----
c)	Average Depth (meter)	Winter season -----
		Rainy season -----
		Dry season -----
d)	Link with other water body	River/ Cannel/ Beel/None
e)	Leasing arrangement	Fisherman co-operative
		Private party
		Other organization
f)	Vegetation	Floating vegetation covered-----%
		Sub-merged vegetation covered-----%
g)	Description of development work recently done	Re-excavation
		Construction of embankment
		Clearance of vegetation
h)	Fry stocking by	Beel Nursery Project
		Fry released program
		Leasing party
		None
i)	Fishing Period	From-----to-----
j)	Fishing Method	Katta Fishing
		Other Fishing
		Both
k)	Number of kata(if any)	No.-----
l)	Description of Fisherman	Number of Fisherman-----
		Number of Boat -----
		Number of gear by type----- -----

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**CATCH ASSESSMENT SURVEY OF BEEL**  
Catch Data of Sample Day

1. District----- Code  Date
2. Upazila----- 3. Union-----
- Name of Officer----- 4. Type of fishing : Katta  Others
- Name of Beel----- 5. Water area in winter season -----Ha
7. Type of gear used

Name of Gear	Total Unit	Sample Unit	Raising Factor

**8. Sample catch data observed in Kg**

Name of Head Fisherman/Catcher :									
Name of Gear									
Sp. Code	Species	Previous day	Sample day	Previous day	Sample day	Previous day	Sample day	Previous day	Sample day
01	Rui								
02	Catla								
03	Mrigal								
04	Kalibaus								
05	Bata								
06	Ghonia								
07	Silver Carp								
08	Grass Carp								
09	Mirror/Com Carp								
10	Other Exotic Carp								
11	Pangas								
12	Boal/Air								
13	Shoi/ Gazar/Taki								
14	Koi								
15	Singi/ Magur								
16	Big shrimp/prawn								
17	Small shrimp/prawn								
18	Tilapia/Nilotica								
19	Sarpunti/Thai Punti								
20	Other inland Fish								
	Total=								

Remarks: Raising Factor = Total Unit operated / Sample Unit

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**CATCH ASSESSMENT SURVEY OF BEEL**  
Estimated Total Catch of Sample Day

1. District----- Code  Date   
 2. Upazila----- 3. Union-----  
 4. Name of Beel----- Name of Officer -----  
 5. Water area in winter season -----Ha 6. Type of fishing : Kata  Others   
 7. Type of gear used

Name of Gear	Total Unit	Sample Unit	Raising Factor

## 8. Estimated total catch of sample day in Kg

Name of Gear										Estimated total catch of sample day (Kg)
Sp. Code	Species	Average catch	Total catch	Average catch	Total catch	Average catch	Total catch	Average catch	Total catch	
01	Rui									
02	Catla									
03	Mrigal									
04	Kalibaus									
05	Bata									
06	Ghonia									
07	Silver Carp									
08	Grass Carp									
09	Mirror/Com Carp									
10	Other Exotic Carp									
11	Pangas									
12	Boal/Air									
13	Shol/ Gazar/Taki									
14	Koi									
15	Singi/ Magur									
16	Big shrimp/prawn									
17	Small shrimp/prawn									
18	Tilapia/Nilotica									
19	Sarpunti/Thai Punti									
20	Other Inland Fish									
	<b>Total=</b>									

Remarks: Average catch = (Catch of previous day + Catch of Sample day)/2  
 Total catch = Average catch of each gear x Raising Factor of corresponding gear  
 Estimated total catch of sample day = Total catch of all Gear

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**CATCH ASSESSMENT SURVEY OF BEEL**  
Catch Data of Other Fishing and Estimated Total Catch

1. District ----- Code
2. Upazila ----- 3. Union-----
4. Name of Beel----- Name of Officer -----
5. Water area in winter season -----Ha 6. Type of fishing : Katta  Others
7. Fishing period: from-----to ----- = -----days (N)
8. Number of sample days ----- (n)
9. Raising Factor : N/n

Sp. Code	Species	Estimated total catch of sample days (kg)						Sample Total (kg)	Estimated total catch for season (kg)
		1 <sup>st</sup> day	2 <sup>nd</sup> day	3 <sup>rd</sup> day	4 <sup>th</sup> day	5 <sup>th</sup> day	6 <sup>th</sup> day		
01	Rui								
02	Catla								
03	Mrigal								
04	Kalibaus								
05	Bata								
06	Ghonia								
07	Silver Carp								
08	Grass Carp								
09	Mirror/Common Carp								
10	Other Exotic Carp								
11	Pangas								
12	Boal/Air								
13	Shol/ Gazar/Taki								
14	Koi								
15	Singi/ Magur								
16	Big shrimp/prawn								
17	Small shrimp/prawn								
18	Tilapia/Nilotica								
19	Sarpunti/Thai Sarpunti								
20	Other Inland Fish								
	Total=								

Remarks : Estimated total catch for whole season = Sample Total x Raising Factor

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**CATCH ASSESSMENT SURVEY OF BEEL**

**Catch Data of Katta Fishing and Estimated Total Catch**

1. District----- Code
2. Upazila----- 3. Union-----
4. Name of Beel----- Name of Officer -----
5. Water area in winter season -----Ha
6. Type of fishing: Katta  Others
7. Total number of katta for whole season----- (N)
8. Number of sample katta observed ----- (n)
9. Raising Factor =  $N/n$  = -----

Sp. Code	Species	Catch of Sample Katta observed (kg)						Sample Total (kg)	Estimated total catch for season (kg)
		1	2	3	4	5	6		
01	Rui								
02	Catla								
03	Mrigal								
04	Kalibaus								
05	Bata								
06	Ghonia								
07	Silver Carp								
08	Grass Carp								
09	Mirror/Common Carp								
10	Other Exotic Carp								
11	Pangas								
12	Boal/Air								
13	Shol/ Gazar/Taki								
14	Koi								
15	Singi/ Magur								
16	Big shrimp/prawn								
17	Small shrimp/prawn								
18	Tilapia/Nilotica								
19	Sarpunti/Thai Sharpunti								
20	Other Inland Fish								
	<b>Total =</b>								

Remarks: Estimated total catch for season= Sample Total × Raising Factor

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**CATCH ASSESSMENT SURVEY OF BEEL**  
**ESTIMATED TOTAL CATCH FOR THE WHOLE SEASON**

1. District----- Code  Year-----
2. Upazila----- 3. Union-----
4. Name of Beel----- Name of Investigator-----
5. Water area in winter season ----- Ha

Sp. Code	Species	Estimated total catch for the whole season (kg)		
		Other Fishing	Katta Fishing	Total catch
01	Rui			
02	Catla			
03	Mrigal			
04	Kalibaus			
05	Bata			
06	Ghonia			
07	Silver Carp			
08	Grass Carp			
09	Mirror/Common Carp			
10	Other Exotic Carp			
11	Pangas			
12	Boal/Air			
13	Shol/ Gazar/Taki			
14	Koi			
15	Singi/ Magur			
16	Big shrimp/prawn			
17	Small shrimp/prawn			
18	Tilapia/Nilotica			
19	Sarpunti/Thai Sharpunti			
20	Other Inland Fish			
<b>Total=</b>				

Production per Hectare-----Kg/Ha

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