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### Fishing industry in Bangladesh

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#### Abstract

Purpose of this case study is to understand fishing as occupation, its related industry and how fishing industry performs in Bangladesh. Fishing is a process to catch fish. Process for catch fish are: Gathering, Spearing, Netting, Angling and Trapping. Fishing industry is led by three different sectors; Commercial sector, tradition sector and Recreational sector. Fishing is major industry that contributes heavily in Bangladesh GDP. This industry had shown growth over the last four decades. Even after facing various challenges in Bangladesh, it is still continue to grow. Let's review how this industry works out in Bangladesh.

**Keywords:** Fishing, fishing industry/sector, GDP, growth rate, techniques, export & import, training & education, issues & challenges

#### Introduction

##### Objectives

1. Understand concept of Fishing
2. Understand Fishing Industry
3. Analysis Fishing industry economic indicators

##### Methodology

In duration of over a month, I have deeply studied:

1. How fishing industry started?
2. How fishing industry works in current scenario?
3. What are the various techniques used by fishermen as individual and companies for catching, processing, and selling them in the market?

I have studied fishing concept in the context of Bangladesh:

1. Since when it is part of Bangladesh economy.
2. What is total water area available with Fishing industry
3. How much growth is shown by this industry
4. Challenges faced by this industry in Bangladesh

##### Fishing Introduction

Fishing is a process to catch fish. Process for catch fish are:

- Gathering
- Spearing
- Netting
- Angling
- Trapping

Fishing word also includes catching other sea animals like scorpion, mollusks, cephalopods, crustaceans, and echinoderms etc. According to UN figures total estimated fishers are 40m in the world. It provides more than 500 million indirect employment

##### Fishing History

Fishing had started 40,000 years ago. Archaeology suggests through study of shell middens, discarded fish bones, and cave paintings, sea foods were important for survival in ancient time as well. Fishing was done in Asia, Africa and Europe to meet their requirement. People used various techniques to meet their requirement like fish traps, spinning or nets.

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**Fishing Techniques**

1. Fish Trap: Trapping is the oldest technique, where net is used to trap fish for various purpose like recreational, commercial and artisanal fishers.
  - Recreational is where fishermen fish for food, for sports or for other purpose.
  - Commercial reason is to earn profit after selling them and earn their living.
  - Traditions, people use it in their rituals and traditions where their ancestors use to do it.
2. Tackle: Man doing fishing on road side. This type of fishing generally done for food. They use various tools for fishing like hooks, lures, nets, traps etc. Fishermen also uses another fish to catch big fish.
3. Fishing vessels: It is a small boat which is used to catch fish in fresh water. Different type of vessels used in all type of activities.
4. Traditional fishing: It is very small in nature. Various tools used such as arrow, net or rods to catch fish.
5. Recreational fishing: It is used for pleasure purpose like competition. It has various laws, rules and restriction. The recreational activity is done with rod, steel or hooks.

**Fishing Industry**

This industry includes catching, processing, preservation, storage, transportation and selling them. It’s a big industry which includes harvesting and marketing fish and its related products. As discussed earlier this industry is itself is so huge that it employs more than 500 m individuals. Moreover in most of the countries there is separate department for fisheries.

There are 3 different sectors in this industry.

1. **Commercial sector:** It comprises of various companies and individuals that catches / harvest fish to make profit out of it. It consists of activities like fish farming, processing products, marketing and selling fish product. Let’s review various activities as follows:
  - Commercial fishing: Top fish product producing countries are:; China, Peru, Japan, US, Russia, India, Iceland and various others.
  - Fish farming: It involves farming fish in pool of water. Different type of fish includes tilapia, carp, cod, salmon and catfish. With constant increase in demand of fish products, it is an upcoming concept to meet the demand.
  - Fish processing: is a technique to convert fish into fish products in such a way that it can be transported to different part of worlds to meet the demand. It includes processing of raw material and fish products manufacturing.
  - Fish products is meat of fish are used as source of food; there are many fish that are edible by human.
  - Fish marketing is used to sell fish product in market. This market consist of wholesale market and retail market.
2. **Traditional sector:** Traditional Sector comprises of mostly individuals associated, where they use fish and their byproducts to make products as per their traditions. This sector describes small scale traditional fishing practices. It doesn’t include large scale or sport activity.

3. **Recreational sector:** Recreational sector comprises of companies or individuals which uses fish for entertainment purpose. It includes activities like farming, fishing all it relates to sport or entertainment purpose but not used for consumption.

**Bangladesh Fishing Industry**

Bangladesh is a state with its border adjacent with Indian Ocean, due to which there is a good source of marine file. Moreover, it has many live water streams which made access to fresh water marine life. So sea food is used in high demand with increase in population. So sea food is most available and cheapest form of protein for Bangladesh to meet demand of its citizens. It is said that more than 80% of animal protein come from fish. At one point of time fishing contributed to around 6% in GDP. Moreover, due to their tradition and values; it brings skill in the area for fishing and maintaining this industry.

	Water Area	Total Cath
Rivers	853,863	138,160
Sundarbans	177,700	18,462
Beels	114,161	79,200
Kaptai Lake	68,800	8,590
Flood Plains	2,832,792	879,513
Total	4,047,316	1,123,925

**Catching**

Earlier they mostly focused on catching the fish, instead of farming them; as earlier population was less and with rich source of sea food or aqua food. They all use to catch from the water and prepare it for selling, processing and for consumption. And other major reason was ignorance to technology.

**Farming**

With increase in demand and technology, they now focus more on farming fish. It became a practice now.

**Education and Training**

Due to size of industry education and training is imparted to make best use of marine life and get best for their country and living. It is provided by the Bangladesh Marine Fisheries an Academy.

**Bangladesh Fishing Economic Indicators**

**Export of Fishery Products**

Fisheries sector emerged as one of the major contributors to the export earnings of Bangladesh. Bangladesh contributes to shrimp by 2.5% of the world. The value of fish products in export and import is USD 650m.

Year	Quantity	Million USD	Quantity	Million USD
2010–11	28,981.2	13.2	96,469.2	443.1
2011–12	37,180.1	18.7	92,479.2	598.5
2012–13	63,062.8	28.1	84,904.5	611.5
2013–14	69,778.1	39.5	77,328.9	560.6
2014–15	97,383.7	39.5	83,524.4	636.8
2015–16	88,593.5	43.2	75,337.9	605.9

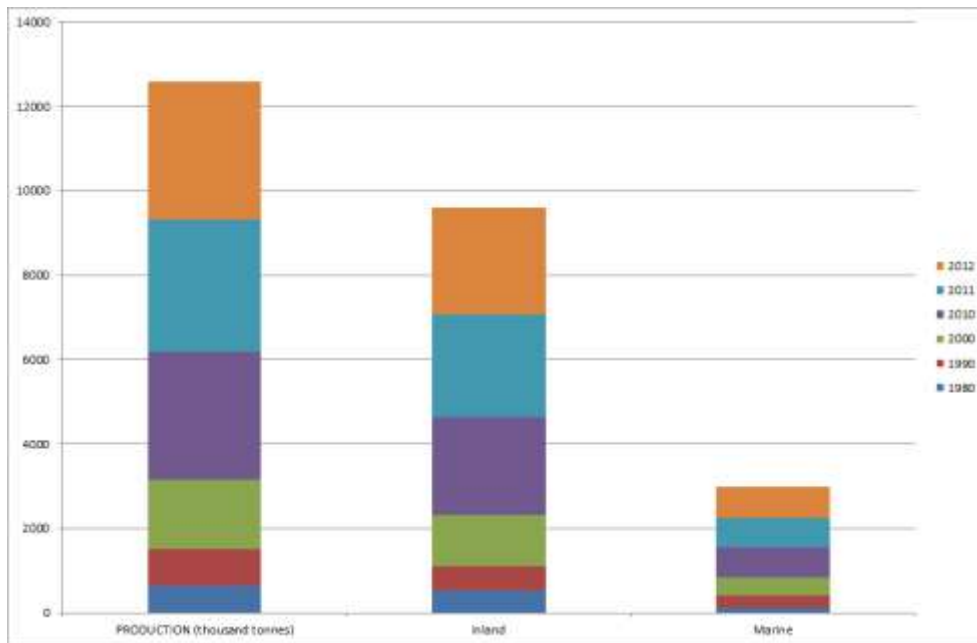
**GDP Contribution**

Water area	10,848km <sup>2</sup>
Shelf area	67,000 km <sup>2</sup>
Length of coastline	710 km
Population (2014)**	156.4 million
GDP at purchaser's value (2012)	USD 116.4 billion
GDP per head (2012)	USD 752
Agricultural GDP (2012)	USD 19 billion
Fisheries GDP (2009-10)*	USD 3 billion
BDT	218 billion

In GDP, contribution of fishery till 2010 was 3 billion.

**Growth in production in a Year**

	1980	1990	2000	2010	2011	2012
PRODUCTION (thousand tonnes)	647	846.1	1661.4	3035.1	3124.7	3261.8
Inland	522.4	565.2	1240.6	2302.4	2433.3	2532.4
Marine	124.6	281	420.7	732.7	691.4	729.4



By 2012 country has made great progress in both the areas Inland fishing and Marine fishing.

- In last three decades on an average country had made growth of 70%
- In from 2010 to 2012 industry shown growth of 3% - 4% every year
- And from 1980 to 2012 production goes to 3261 tons per year

- Strick rule and regulation which again pulling down its economic growth.
- There is huge burden on this industry and government needs to take necessary action to distribute burden from this industry.
- Bangladesh fishery industry is very sensitive to climate, due to this there is a change in food and money with change in whether.

**Current Issues Faced By Bangladesh Fishing Industry**

- Fish food quality is not up to the mark, which pulling down the development in Bangladesh.
- Lack of management focus on fishery even after huge support and potential of fishery industry, not utilizing industry resources up to the mark.
- Fisheries resources assessment is accepted but they are considered while making management decisions.

**Conclusion**

1. Fishing industry in major contributor in Bangladesh GDP
2. Export grows year on year basis
3. Bangladesh has huge water resources due to which this industry flourish over there
4. Various methods used within Bangladesh to catch
5. Fishing industry faces various challenges

- a. Education and training
- b. Infrastructure development
- c. Increase in Demand
- d. Lack of management interest
- e. Strick Laws

### Recommendation

1. As per my analysis and study in this area, I recommend Bangladesh management should put more focus on this area which will in turn help in its GDP growth.
2. There is a need to adjust rules and regulation to use available resources to their optimum capacity.
3. Government should help fishermen and traders to gain education and training for proper utilization of resources and reduce wastages.
4. They should put more focus on introduction of new technology
5. Instead of catching from live water streams, they should put more focus on farming as well in order to meet increasing demand and keeping main stream water intact

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