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## Fisheries: Solution to nutritional and food security

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### Abstract

Food and nutritional security remain urgent challenge. Hunger and malnutrition problem is critical because the global population is likely to grow by about two billion over the next two decades. According to the recent data (FAO 2019) before the COVID-19 pandemic, almost 690 million people, or 8.9 percent of the global population, were undernourished. In India 230 million are undernourished people 21% population suffer from under-nutrition. In 21<sup>st</sup> century nutritional and healthy food is global demand. Fish and Fisheries product providing a crucial source of food at global, national, and local levels. It is best source of protein and all nutritional value. Globally, more than 3.1 billion people depend on fish for nearly one-fifth of their average per capita protein from animal sources. It plays major role in helping to solve problem like hunger and malnutrition and food security. Due to the particular nutritional value of fish, fisheries represent far more than a source of protein. They are sufficient source to end Hunger and food insecurity and reduce the burden of communicable and non-communicable disease around the world.

**Keywords:** nutrition, fisheries, food security.

### Introduction

#### Current scenario: Hunger and malnutrition

Food is life, food is culture, food is nutrition and security. Food is human right to every Women, man and child. Hunger and malnutrition problem is critical because the global population is likely to grow by about two billion over the next two decades. According to the recent data (FAO 2019) before the COVID-19 pandemic, almost 690 million people, or 8.9 percent of the global population, were undernourished. In India 230 million are undernourished people-21% population suffer from under-nutrition. Especially children face the social problem like hunger and malnutrition. Since 2014 – 15 globally so many people affected by hunger and food security problem. Malnutrition in children is also major problem in many poor countries. World hunger is rise due to poverty, conflict, climates variability and extremes. But there is enough food for everyone. Eradicating food and nutrition in security by 2030 is possible by protecting natural resources and making sustainable food choices [2].

#### Global fish production and utilization

Fisheries resources are one of the most important renewable sources. Global fish production is estimated to have reached about 179 million tons in 2018, about 88 percent (156 million tons) of world fish production was utilized for direct human consumption. The proportion of fish used for direct human consumption has increased 67% from 1960s. Per capita food fish consumption is increase from 9.0 kg in 1961 to 20.5 kg in 2018, by about 1.5 percent per year [3]. Fish and fish products as the largest group in agriculture export from India.

#### Contribution of fisheries sector to food and nutrition security

Fish is an important food source. One of the most traded food commodities in international markets. A cheap source of protein, bio available essential fatty acids, ensures global nutritional security [4]. Fish and Fisheries product providing a crucial source of food at global, national, and local levels. It is best source of protein and all nutritional value. Globally, more than 3.1 billion people depend on fish for food. About one-fifth of their average per capita protein from animal sources. Fish is important in the diets and livelihoods of many poor people suffering from vitamin and mineral deficiencies [4]. The most important contribution of fish is source of multiple micronutrients which essential to addressing a variety of health issues worldwide [5]. It play major role in helping to solve problem like hunger and malnutrition and food security. They are sufficient source of micronutrients vitamins and

minerals and omega-3 fatty acids, which are necessary to end Hunger and food insecurity and reduce the burden of communicable and non-communicable disease around the world. Fish processing and food security for women in particular, fish processing and trading provide a very important livelihood support [6] Fish contributes major source of total animal protein supply and protein consumed by humans worldwide.

### Nutrient profile of fish

Fish contain low-fat high-quality protein. In addition to seafood food provide crucial fatty acids, including omega-3 polyunsaturated fatty acids, and essential micronutrients, including vitamins A, D, and B and calcium, zinc, iron, and iodine. Shellfish group is good source of selenium which is essential mineral needed to makes enzyme that play key role in body internal antioxidant network [7]. Fish oil is also good source of vitamin A and D [8]. The multiple nutrients found in fish have a variety of health benefits, including lowered risk of cardiovascular disease; improved maternal health, pregnancy outcomes, and infant and early childhood physical development; improved immune system function; and alleviation of health issues [9]. More than 50% of Indian population is fish eating and in some states like Assam and other North-Eastern states, West Bengal, Odessa, Goa and Kerala, more than 90% of the population consume fish [10].

**Table 1:** Nutritional value of skipjack tuna 100gm fillet [11]

| Calories 132              |     |             |     |
|---------------------------|-----|-------------|-----|
| % Daily Value             |     |             |     |
| Total Fat 1.3 g           |     | 2%          |     |
| Saturated fat 0.4 g       |     | 2%          |     |
| Polyunsaturated fat 0.4 g |     |             |     |
| Monounsaturated fat 0.2 g |     |             |     |
| Cholesterol 60 mg         |     | 20%         |     |
| Sodium 47 mg              |     | 1%          |     |
| Potassium 522 mg          |     | 14%         |     |
| Protein 28 g              |     | 56%         |     |
| Vitamin A and c           | 1%  | Magnesium   | 11% |
| Calcium                   | 3%  | Iron        | 8%  |
| Coalmine                  | 36% | Vitamin B-6 | 50% |

### Health benefits of fish food

1. Fish is a great source of omega-3 fatty acids which keeps our heart and brain healthy. It slows down the fat build up in arteries and reduces cholesterol and lower down blood pressure slightly.
2. N-3 fatty acid present in fish oil that reduces the risk of cancer and it stabilizes the blood sugar and reduces the risk of diabetes [12].
3. During pregnancy in taking of fish supports healthy brain function and healthy development of vision and nerves of the infant.
4. Eating fish on a regular part of balanced diet reduces the risk of arthritis and joint pains.
5. Seafood can improve your blood circulation and reduce the risk blood clots and inflammation.
6. Seafood also lessens the risk of depression and diabetes.
7. Boost immune system and energy level.

### Conclusion

The nutrition and food security contributions of fish, in particular from capture fisheries, are of crucial importance to the world's growing population. Fish provide major global supply of animal protein. Fish and fisheries product is best

source of protein and all nutritional value. Fish makes crucial contributions to food security at global, national, and local levels. It plays major role in helping to solve problem like hunger and malnutrition and food security.

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