

## IMPORTANCE OF FISHERIES EDUCATION IN GUJARAT

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### ABSTRACT

Education is a lifelong process. Human Resource Development (HRD) in fisheries is possible through education especially higher education and training. In India, education in all agricultural sciences, including fisheries, is the responsibility of agricultural universities in their respective states. The aim of fisheries education is to develop skills and enhancing fish production through resources utilization, modern culture systems, applying modern harvesting and post harvesting techniques, marketing as well as social advancement of the fishing community. The state of Gujarat has the longest coastline of 1600 km among the maritime states of India, with continental shelf area of about 165000 sq.km. Gujarat is having second largest coastal brackish water area in country. From these potential areas, 89000 ha have been identified as suitable for coastal aquaculture. Fisheries contributes immensely to food security of the state by provided an important source of cheap and highly nutritious food. Through fisheries education and training, socio economic development of the state can be achieved.

**Keywords:** fisheries education, gujarat, fisheries, sustainable

### INTRODUCTION

The education must be constant and continuous programme to make a complete success of once life imperative to develop the special skills. Higher education plays a significant role as an effective instrument for large scale achievement and revolution. The importance of education in the fisheries sector got priority during the 1980s (Mathema, 1992). In India, fisheries have always been playing a pivotal role in the food and nutritional security of people, especially in rural area.

Fisheries sector occupies a very important place in the socio-economic development of the country (Vinaya *et al.*, 2016). It has been recognized as a powerful income and employment generator as it stimulates growth of a number of subsidiary industries and is a source of cheap and nutritious food besides being a foreign exchange earner. Most importantly, it is the source of livelihood for a large section of economically backward population of the country.

### OBJECTIVES

To know the importance fisheries of education in gujarat

### FISHERIES IN GUJARAT

The state of Gujarat, has a land area of 1,96,024 sq. km, blessed by nature in the form of large continental shelf of 1,64,000 km<sup>2</sup>. It has Coastal line of 1600 km which is almost 20% of the total coastal length of India. The current fish production from marine sector of Gujarat state has been estimated as 6.9 lakh tones. (2011-12). Total export value of fish and sea food product from Gujarat is Rs 2533 crore. Gujarat contributes about 22% of total fish and sea food export from country and value wise it is 15% of total export value of India (Badonia *et al.*, 2014).

Fish food has been an important part of the diet of human in almost all countries in the world. Fish serves as a health-food for the affluent world owing to the fish oils which are rich in polyunsaturated fatty acids (PUFAs), at the same time, it is a health-food for the people in the other extreme of the nutrition scale owing to its proteins, oils, vitamins and minerals.

In order to cater the requirement of different national and international market there are many fish based industries placed in Gujarat. The major industries are of fish processing, fish meal, dry fish, fish maws, fish oils etc. There are nearly

120 fish processing units are operating in Gujarat. The main export commodities from Gujarat are frozen shrimp, frozen cuttle fillets, frozen squid, frozen fresh fish etc.

There are 12 coastal districts and 10 major fish landing centres in Gujarat. The coastal districts are Kachchh, Jamnagar, Porbandar, Rajkot, Gir somnath, Amreli, Bhavnagar, Anand, Bharuch, Surat, Navsari and Valsad. The major landing centres are Veraval, Porbandar, Mangrol, Jafrabad, Okha, Rupen (Dwarka), Jakhau, Rajpara, Navabandar and Umersadi. A part from the fact that fisheries support about 603.84 lakh people in the state, it provided an important source of cheap and highly nutritious food and contributes immensely to food security of the state.

### **FISHERIES EDUCATION**

In India, the higher education system in fisheries science has grown remarkably in the post-independence system in fisheries science has grown remarkably in the post-independence period, to become one of the largest systems of its kind in the world. Fisheries education and research are mainly steered by Indian Council of Agricultural Research (ICAR), an autonomous society under the Government of India, and State Agricultural Universities (SAUs), run by the State governments (Shamasundar, 2013).

The first fisheries college was established in 1969 at Mangalore. Today India have 18 fisheries colleges, two fisheries universities (Kerala and Tamil Nadu) and one deemed University (CIFE) with an annual output of about 570 Bachelor's degree holders, 250 Master's Degree holders and 93 Ph.D (Modayil, 2013).

The aim of fisheries education is to develop skills and enhancing fish production through resources utilization, modern culture systems, applying modern harvesting and post harvesting techniques, marketing as well as social advancement of the fishing community. In India, education in all agricultural sciences, including fisheries, is the responsibility of agricultural universities in their respective states.

#### **College of Fisheries Science, Veraval, Gujarat**

College of Fisheries is only one college in the State, providing fisheries education, was set up at Veraval on September 10, 1991 under the Gujarat Agricultural University. With the bifurcation of Gujarat Agricultural University, the College became constituent college of Junagadh Agricultural

University with the effect from May 01, 2004.

The College offers under-graduate (B.F.Sc.) and post-graduate (M.F.Sc. and Ph.D.) degree programmes in Fisheries Science. Since 2006, the College has started offering post-graduate degree (M.F.Sc.) in the three disciplines viz. Aquaculture, Fisheries Resource Management, and Post Harvest Technology. Similarly, Ph.D. degree programme has commenced from the academic year 2011-12.

#### **Opportunities after fisheries education**

- ◆ Seafood quality and management in fish processing industry.
- ◆ Various posts of department of Fisheries.
- ◆ Faculty in fisheries colleges of India.
- ◆ Fisheries Scientist in different fisheries research institute of Central government and different research station of Agricultural University.
- ◆ Fisheries Subject Matter Specialist in Krishi Vigyan Kendra.
- ◆ Aquaculture business
- ◆ Small scale industries related to fisheries.
- ◆ Marketing sector of different Banks.

#### **Skilled human resource development for fisheries sector**

Fisheries and allied sectors are growing at a faster pace. Therefore, there is demand for knowledgeable and skilled human resource for the development of standard products and services in the sector. The skilled workforce can be prepared through proper education and training. The role of higher education within the national HRD strategy broadly follows the pattern advocated by Thompson and Fogel (1976) for educational development in developing countries, in which higher education is strongly embedded into the national community as a whole instead of being an elitist institution which is removed from the realities of the majority of the population (Rena, 2006). HRD programmes in fisheries sector is required to gear up inland, marine and fish processing areas like, finfish and crustacean breeding, molluscan culture, feed preparation, seaweed cultivation, fish processing, fish boat building, etc. with skilled human resource. College of Fisheries Science plays a key role in fisheries education and produce skilled workforce to strengthen fisheries field in the state. Simultaneously the

training organizes by various institutes, College of Fisheries Science and Fisheries department, provides trained and skilled human workforce for fisheries sector.

### Fisheries education for sustainable fisheries

Fisheries education provides in depth knowledge on fish, fishing, and fisheries resource management issues, responsible aquaculture, ecosystem management, fish health management and use of modern tool to increase productivity, which are important in developing a more informed, responsible persons that can help to solve the problems caused by past actions and contribute to building sustainable fisheries. There are many unstrapped area in the fisheries sector that can be utilized by the proper training and educating students.

### CONCLUSION

Gujarat is an important state with immense resources that can be utilize for culture and having longest coastline as well as good amount of fresh water area for capture fisheries. There is a vast potential of strengthening fisheries sector of the state sustainable way, by providing skilled human resources. College of fisheries science is the only premier institute in the state for fisheries education, under Junagadh Agricultural University. Fisheries graduate/ post-graduate students and trained trainees will contribute in development of fisheries sector sustainable manner. Fisheries education plays very important role in socio economic development of the state.

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