



Monday, 27th May 2013

Convocation Address

By

Padma Bhushan Dr. R.S. Paroda

*Chairman, Haryana Farmers' Commission and
Trust for Advancement of Agricultural Sciences (TAAS) &
Former Secretary to Government of India &
Director-General, Indian Council of Agricultural Research*



केन्द्रीय मात्स्यिकी शिक्षा संस्थान
Central Institute of Fisheries Education
Mumbai

Central Institute of Fisheries Education (CIFE)

(Indian Council of Agricultural Research)

11th CONVOCATION

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I am extremely pleased to be here on the occasion of your 11th Convocation. I deem it an honour to deliver this convocation address at the Central Institute of Fisheries Education, an institution par excellence, with which I have had a special attachment.

At the outset, let me congratulate the students who have received their degrees and awards today. I also compliment their parents for providing needed encouragement and support to fulfill their dreams. I also congratulate the faculty members for creating such an excellent human resource in the area of fisheries and allied disciplines. Indeed, this is a moment which you all must rejoice. At the same time, this is the time to realize the enormous responsibilities that lie before you. I have no doubt that the knowledge and skills acquired and the values you have imbibed will enable you to meet your goals successfully.

I feel proud to state that the Central Institute of Fisheries Education is one of the best institutions in Asia. You must derive a sense of pride in it. Your excellent performance in the Agricultural Research Service (ARS), greater demand in the industry based on entrepreneurial skills and the global placements of several of you are the testimony of quality education imparted at CIFE.

Let me remind you that four cradles of Green Revolution success were :i) policy support, ii) institutions, iii) human resource and v) partnership. Hence, for attaining Blue Revolution, which we urgently need for our nutrition security, I see critical role of CIFE to build much needed human resource in fishery sector.

Our major problems today are not only of hunger and poverty but also of nutrition security. Every one child among three is today malnourished. Diversification in agriculture (horticulture, animal husbandry and fishery) can only help in addressing this challenge. Moreover, projected demands for 2050 reveal much higher requirements for meat, fish and fruits compared to food grains. Inland aquaculture, therefore, holds key to meet future demands with much higher growth rate in fishery sector.

As already stated, both fisheries and aquaculture have great role in meeting both food and nutritional requirements of our ever growing population. Besides, needed progress in this sector can improve lives of millions of resource poor fishermen. Although the world fish production in the past five decades has out paced the population growth, the challenges faced today are multi-dimensional. These include the volatile world economy, climate change related uncertainties and associated extreme weather patterns, besides the shrinking natural resources. Further, number of people suffering from poverty is growing. Out of one billion people below poverty line, 300 million live in India alone. According to FAO, 'the vital contributions from fisheries and aquaculture to global food security and economic growth remain constrained by an array of problems. These include: conflicts over water territory, over-use of natural resources, poor governance, weak fisheries management regimes, use of poor fishery and aquaculture practices, a failure to incorporate the priorities and rights of small-scale fishing communities, and injustices relating to gender discrimination and child labour'.

Despite these, it is predicted that aquaculture will remain to be the fastest animal food-producing sector in the coming decades. Including capture fisheries, the fish production is likely to exceed that of beef, pork and poultry. Therefore, future of fisheries and aquaculture depends on how we address these challenges and harness available opportunities in a sustainable manner, since I believe that we have tremendous potential to accelerate progress in fishery sector. For this, we reorient our research priorities and build required human resource for both upscaling and outscaling innovations.

In any country, sectoral growth and industrial development plan is inseparably linked with human resource development. Accordingly, in India, human resource development assumes utmost significance as the country's stature in the world economy rises. Despite enormous potential of fisheries sector, the subject of fisheries education in the country somehow had a late start. Nevertheless, over the past two decades, fisheries research and education has moved ahead globally at an accelerating pace. However, global economic regimes and new regulations, certifications, inclusion of societal and environmental issues, intellectual property and trade related issues have warranted greater preparedness of fishery industry. To address all these, we shall require qualified human resource capable of dealing with much complicated problems. Hence, fisheries education system must redesign its curricula to meet newer challenges. Further, to remain competitive, end user-compliant, sensitive and viable,

educational and research institution like CIFE must build on the existing strength to meet aspirations of all stakeholders.

I am quite aware that CIFE is making adequate adjustments and implementing needed changes to be a Centre of Academic Excellence, that too in a short span, offering education in eleven specialized disciplines. Nevertheless, one of the important gaps that I wish to highlight, despite visible educational transformation, is regarding lack of placement of graduates due to non- recognition of trained graduates by many State Departments of Fisheries. I, therefore, urge that disciplines offered by CIFE and other Universities should find a place in the Agricultural Research Service (ARS), and the State Departments of Fisheries. Old qualifications must be modified quickly to have an exclusivity for the specialized human resource. Let me congratulate ICAR for adding three new disciplines in the ARS, namely Fish Health, Fish Nutrition and Fish Genetics & Breeding. Having been associated with ARS Review Committee, let me confess that there was considerable resistance to this change. Hence, addressing change is not easy but then we also know that required progress is not possible without change.

Further, I also, consider harmonization of fisheries education to be a priority. CIFE can take lead in this regard involving other academic institutions. I would even go a step forward to suggest that process of accreditation for Fishery Colleges be introduced by ICAR on lines similar to that of Veterinary Council. This can help in improving quality education.

India is fortunate to have long coast line for marine fish production, even more than China. Globally, however, the marine fish production has declined over the last few decades. The Indian marine production has remained static at around 3.5 million tonnes for more than a decade. On the contrary, production of inland aquaculture is growing at much faster pace. Just in last three decades, we have tripled our production from 1.5 million tonnes to currently around 5.0 million tonnes. This is nothing less than Blue Revolution which has silently taken place. Today, we produce around 8 million tonnes of fish and are rated number two globally. We can certainly aim to become number one in the whole world. Let us, therefore, aim to realize this dream at the earliest possible.

On the research front, certain disciplines of genetics, biotechnology, nanotechnology, GIS, ICT have started paying dividends in aquaculture. However, for sustainable development, diversification (both in terms of species and technology) is very much needed. Introduction of non-native species is prudent in view of undeniable economic benefits (example: Tilapia, Sea bass). However, for the long-term sustainability, exploring and harvesting our own native species would be more desirable. This along with the prospects of utilizing inland saline water resources for aquaculture is going to accelerate overall production. It is commendable that Rohtak Centre of CIFE has demonstrated successfully the shrimp and finfish culture in saline areas of Haryana, attracting considerable attention. Besides, 30 years ago, one could not have imagined that fish will become a part of

our food basket in the northern land-locked States of Haryana, Punjab and Rajasthan. To our surprise, it has happened with great success, which now we must promote.

Today, agriculture is just not a way of life but a respectable profession. Similarly, we must aim to have fishery sector not simply a way of fishing but a scientific and sustainable approach for household nutrition security and improved livelihood.

The growing interest in aquarium fishes has resulted in steady increase in aquarium fish trade globally. The wholesale value of the global ornamental fish trade is estimated to be US\$ 1 Billion while the retail value is US\$6 Billion. More than 4,000 freshwater and 1,400 marine species are traded internationally each year from over 100 countries. However, despite having vast potential of ornamental fishes, India has almost negligible share in the world market. It is heartening to learn that CIFE has decided to initiate a flagship programme on ornamental fish resources in the XII Five Year Plan.

In my view, in addition to formal academic programmes, demand-driven practical training to various stakeholders would be equally rewarding. This would need a refocus, and if required, a policy framework to circumvent the existing inadequacies in our extension system. We need technology agents to provide advisory services for aquaculture development. It shall also be considered whether proper scientific inputs can be given to the State Department of Fisheries to orient their traditional mandate

of 'revenue generation, regulatory and conservation roles' to that of a 'progressive translational role' in order to harness scientifically the existing potential.

In an era of globalization, where markets are integrated, linking farmers to market would help in achieving inclusive growth and development of fish farmers. Forming self-help groups and producer companies in today's new economic regime, like the ones in Andhra Pradesh, would accelerate the pace of fish sector much faster. Fish is the largest traded food commodity in the world today, with almost 40% of global production entering world trade. While organized fishers have gained from such market integration, the scenario with respect to small farmers / fishers, especially in inland fisheries sector, has lagged behind. Hardly any value addition happens in the inland sector while only primary processing is done in marine sector. We need to learn from successes in other countries like Thailand, China and Philippines, where they purchase raw material from other countries, including India, reprocess, package and export to developed countries fetching much higher price. Ironically, several processed and packaged food materials are being imported today for internal consumption. We must, therefore, give priority to fish processing, using low cost rural based value-addition. Fish processing sector would also create large-scale employment opportunities while benefitting both producers and consumers. We need to replicate win-win stories. We must also modernize our fish markets and create much needed cold chain through greater public-private investments. CIFE in partnership

with CIFT can play very significant role in addressing this objective. Fortunately, India has done exceedingly well as far as Indian marine export is concerned. In last decade, we have almost doubled our export from 4.4 lakh tonnes to almost 9.0 lakh tonnes, fetching US \$ 3.5 billion - a remarkable achievement. As stated earlier, we can do still better with proper policy support and outscaling of innovations in fishery sector.

Dear young graduates,

Remember that road to success is neither straight nor smooth. You must be ready to face both with courage and conviction all new hurdles that may come in your way to accomplish desired goal.

Let me also quote Rabindranath Tagore. He had said *“The highest education is that which does not merely give us information but makes our life in harmony with all existence”*. I am sure you all will appreciate these great words of wisdom and strive hard to play an important role for the betterment of our millions of fisher folk who look towards you to improve their livelihood. I am sure you will leave no stone unturned in this regard.

I must congratulate Dr. S. Ayyappan, the first fishery scientist at the helm of ICAR, Dr. Lakra and former Directors as well as faculty members to have nurtured CIFE to become a

centre of excellence, of which we all can be proud of. It is good that we created CIFE or else we had to create one today. Since, we have one, let us nurture it well.

Finally, my plea to Dr. Ayyappan, to consider doubling the current allocation of Fisheries division under 12th FYP from 600 to 1200 crores considering the fact that fishery sector alone contributes almost 5% of our agriculture GDP. It is clear that without investment nothing will happen. This in my view is a justified demand which must be met.

Once again, my heartiest congratulations to all those who are graduating today.

JAI HIND

