

# Blue Economy-Wave 32

## (Aquaculture)



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from Marine sector (GoI report, 2011). The export of fish and fish based products have shown a steady growth and during 2009-10, 678436 tonnes of seafood valued at 10048.53 crore (USD 2132.84 million) were exported to nearly 100 countries. There has been significant growth in the seafood processing sector which at present consists of 369 processing plants of which 236 are EU approved meeting the world's highest quality standards. (Source CIFT Vision 2030)

India being an agrarian country with over 70% people depending on agriculture for food/livelihoods, agriculture/allied sub-sectors get much importance. India with huge aquatic resources has registered a phenomenal growth in fisheries production with 10.8 million tons (mt) in 2015-16 (6.4% of world's total fish) from mere 0.75 mt in 1950-51, which is 14-fold increase. Being one of the top fish producers and 2nd in aquaculture production in world, India earns about US\$ 5 billion (2015-16) through exports (10% of total export

(Series on "Blue Economy" By Capt. Gajanan Karanjikar)

### Table : Tweaking the Indicators to Suit India

and 20% of Agriculture export). Also, fisheries support 15 million people for food/livelihoods and contributes 1.1% to total India's GDP (5.3% to Agriculture GDP). Presently, freshwater fisheries is growing faster as compared to marine fisheries. About 3.58mt (2015-16, 33% of total) against estimated potential, 4.41mt marine fish produced and rest (67%) came from freshwater. Of late, aquaculture contribution outweighed capture fisheries. Despite growth, India presently produces 10 times lower than China (leading fish producer) and stands around 136th-rank in per capita fish consumption with 9kg amongst 160 countries of world. India invests more on research and technological advancements to improve fish production and meet projected demand, 15mt fish by 2020 with 8% annual growth rate.

significantly in future as it has been found to be profitable as well as less risky. The three Indian major carps, namely catla (*Catla catla*), rohu (*Labeo rohita*) and mrigal (*Cirrhinus mrigala*) contribute the bulk of production to the extent of 70 to 75 percent of the total fresh water fish production, followed by silver carp, grass carp, common carp, catfishes forming a second important group contributing the balance of 25 to 30 percent. It is estimated that only about 40 percent of the available area of 2.36 million hectares of ponds and tanks has been put to use and an immense scope for expansion of area exists under freshwater aquaculture (Handbook of Fisheries and Aquaculture, 2013, ICAR publication, India). The national mean production levels from

in 1974 to over 2 900 kg/hectare/annum at present and several farmers are even demonstrating higher production levels of 8-12 tonnes/hectare/year (Handbook of Fisheries and Aquaculture, 2013, ICAR publication, India). The technologies of induced carp breeding and polyculture in static ponds and tanks virtually revolutionized the freshwater aquaculture sector and turned the sector into a fast growing commercial sector. The developmental support provided by the Indian Government through a network of Fish Farmers' Development Agencies and Brackish water Fish Farmers' Development Agencies and the research and development programmes of the Indian Council of Agricultural Research (ICAR) have been the principal vehicles for this revolutionary development. In addition, additional support was also provided by various state governments, host of organizations and agencies like the Marine Products Export Development Authority, financial institutions, etc. Effective utilization of unutilized/under-utilized resources through modern farming systems, mobilizing farmers/stakeholders, technological innovations and policy/support mechanisms are some of ongoing thrusts.

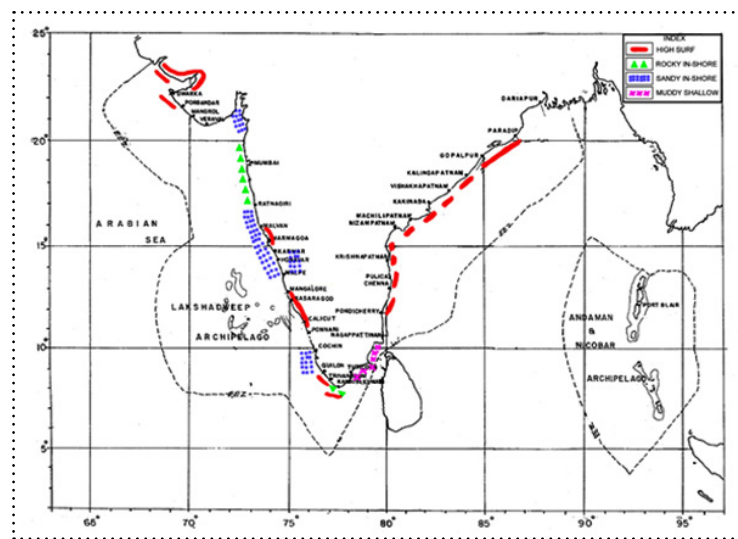
Inland Fisheries :

India's freshwater resources consists of rivers and canals (197,024 km), reservoirs (3.15 million ha), ponds and tanks (235 million ha), oxbow lakes and derelict waters (1.3 million ha), brackishwaters (1.24 million ha) and estuaries (0.29 million ha)

(To be continued...)

**Aquaculture has been found to be profitable as well as less risky**

The contribution of fisheries to the GDP during 2009-10 was 0.8 per cent. The fishery has emerged as a sunrise sector which provides food, employment and economic benefits to large sections of the society. It is a source of livelihood for about 15 million people engaged fully, partially or in subsidiary activities pertaining to the sector. Besides, an equal number are engaged in ancillary activities in fisheries and aquaculture. Total fish production in 2009-10 stood at 7.85 million tonnes comprising of 4.87 million tonnes from Inland and 2.98 million tonnes



Aquaculture (carp, molluscs, and crustacean) may expand still-water ponds has gone up from about 600 kg/hectare/year

## CMA CGM sets sights on becoming carbon neutral by 2050



Saadé added that CMA CGM was on track to reduce its CO2 emissions per tonne transported per km by 40% by 2030

plans of switching 10 % of its energy supply to alternative fuels by 2023 and attaining carbon neutrality by 2050.

Other speakers who participated in the gathering included Deputy UN Secretary-General Amina Mohammed, Prime Minister of Norway Erna Solberg, UN Secretary-General's Special Envoy for the Ocean Peter Thomson, the Secretary-General of the International Maritime Organization Kitack Lim, and Director General of WWF International Marco Lambertini.

**The target is being achieved ten years ahead of the industry schedule.**

Saadé added that CMA CGM was on track to reduce its CO2 emissions per tonne transported per km by 40% by 2030 when compared to the levels from 2008, a target set by the International Maritime Organization (IMO). As explained, the target is being achieved ten years ahead of the industry schedule.

CMA CGM's CEO pointed out that "in 2019, we reduced our total CO2 emissions by 6%. These significant reductions were made possible thanks to our mobilization, the technological innovations implemented and improved management of vessel operations."

CMA CGM has already committed to LNG as a marine

fuel for its nine colossal 23,000 TEU containerships being built in China and set for launching and start of sequential delivery this year.

The company said that these ships symbolize "the path that we are taking in terms of energy transition using the most advanced eco-friendly technology available today."

**As explained, the ships will reduce greenhouse gas emissions around 20%, and cut almost all sulphur and fine particle emissions.**

By 2022, CMA CGM plans to have 20 LNG-powered vessels in its fleet, including the nine 23,000 TEUs, five 15,000 TEU containerships, as well as six vessels of 1,400 TEUs.