



## SHIPPING (REGIONAL)

"A sailing ship is no democracy; you don't caucus a crew as to where you'll go anymore than you inquire when they'd like to shorten sail. - Sterling Hayden

# Blue Economy-Wave 44

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



**Capt. Gajanan Karanjikar, Blue Economy Social Activist & Multi Modal Logistics Expert**

The unexplored and understudied nature of much of the underwater world means that the capacity of marine organisms other than fish and shellfish to provide inputs to the blue economy is only just beginning to be appreciated, partly through new gene sequencing technologies for living organisms. There have already been successes. The anti-viral drugs



Zovirax and Acyclovir were obtained from nucleosides isolated from Caribbean sponges. Yondelis, developed from small soft-bodied marine animals was the first drug of marine origin to fight cancer. Exploration of the sea biodiversity is now helping us understand for example how organisms that can withstand extremes of temperature and pressure and grow without light could be used to develop new industrial enzymes or pharmaceuticals. At the same time, concerns about the land-use impact and the thirst for water of terrestrial crops grown for biofuel are driving efforts to explore the use of algae as a source of biofuels, along with high

added-value chemicals and bioactive compounds. While estimated current employment in the sector in Europe is still relatively low, and a gross value added of €0.8 billion, the growth of the sector will offer high-skilled employment, especially if ground-breaking drugs can be developed from marine organisms, and significant downstream opportunities. In the very short term, the sector is expected to emerge as a niche market focused on high-value products for the health, cosmetic and industrial biomaterials sectors. By 2020, it could grow as a medium-sized market, expanding towards the production of metabolites and primary compounds (lipids, sugars, polymers, proteins) as inputs for the food, feed and chemical industries. In a third stage, around 15 years from now and subject to technological breakthroughs, the blue biotechnology sector could become a provider of mass-market products, together with a range of high added value specialised products. Accelerating this process will require a combination of basic research on ocean life and applied research on possible industrial applications with low probabilities but high rewards for success.

A strategic approach to research and innovation would provide the scientific and technological bases for substantiating the strategic decisions that emerging industrial sectors need. By reducing

technical bottlenecks in this area, the whole sector would become more attractive to investors. It would also help EU industry to move from the developmental stage to the commercialisation of innovative products. A European approach would raise awareness among policy makers, the private sector and the general public of the potential of marine aquatic products.

Marine biotechnology is a knowledge generation and conversion process: it unlocks access to biological compounds and provides novel uses for them. By exploring and harnessing marine materials, entirely new uses in areas far from the marine are likely to be found. Already there are successful marine:

- origin pharmaceuticals,
- novel industrial enzymes,
- food ingredients,
- biosensors,
- drug delivery systems
- and new chemical compounds.

Marine biotechnology is an opportunity recognised by policy makers and the enterprise sector as offering significant potential to fill market gaps for new products. Further insights to the evolution of marine biotechnology and its role in enabling the sustainable exploitation of marine biological resources in ways benefit the lives of citizens and contribute to economic progress

**(To be continued...)**

## SHIPPING (INTERNATIONAL)

### Higher carbon and fossil fuel taxes necessary to incentivize shipping to make the necessary investments towards a zero emissions future

NEW DELHI  
Sagar Sandesh News Service

The theme for this year's World Maritime Day is "Sustainable shipping for a sustainable planet", and the shipping industry has a huge task going forward in improving our environmental footprint within areas such as cleanliness of ballast water, reduction in marine litter and perhaps most important in reducing green house gas emissions.

#### Sustainability is finally high on the agenda in the shipping industry

Sustainability is finally high on the agenda in the shipping industry among shipowners, charterers and governments around the world. The International Maritime Organization (IMO) has started the transition towards a sustainable future and has adopted and will continue to develop measures to push the industry in the right direction. In addition, we saw last week European lawmakers agreeing to include international carbon emissions from the maritime sector in the EU carbon market from 2021.

These measures not enough to increase the speed of the decarbonization of the shipping industry

It is however questionable, whether these measures will be enough to increase

the speed of the decarbonization of the shipping industry. Higher taxes on fossil fuels and/or carbon pricing will be necessary going forward to incentivize shipping to make the necessary investments and to start using low carbon fuels and eventually zero emission fuels.

#### Klaveness Combination Carriers targets to reach carbon neutral within 2030.

Klaveness Combination Carriers offers today the most carbon efficient deep-sea dry bulk and tanker shipping solution and has set ambitious environmental targets including reaching IMO's 2030 carbon intensity targets within 2022 and becoming carbon neutral within 2030. We have several ongoing initiatives both when it comes to operational efficiency and technical solutions to save fuel.

#### We are strong supporters of decarbonizing of the shipping industry

We have also tested sustainable biofuel in 2020 and are progressing in our work to develop future zero-emission solutions. The industry has a long way to go, and we are strong supporters of new international regulations that can increase the speed of decarbonizing of the shipping industry.

## Online Executive Program in Ship Management & Logistics



Organised by  
**IME (I)-Mumbai & NMIS**



"The Institute of Marine Engineers (India) – Mumbai and Narottam Marorji Institute of Shipping are jointly organizing an one year online Executive Program in Ship Management and Logistics starting from 1st October 2020 for the Engineers, Nautical Officers, Working Professionals in the Maritime Industry and also for Students.

The Teaching methods include online theory, weekend classes and examinations. The online classes will be conducted on every Saturday and Sunday by the best team of faculty from the industry viz., Dr.B.K.Saxena, Captain D.Gautama, Mr.Dinesh Kutty, Mrs.Sonal Satelkar, Captain R.Swaminathan, Captain R.Bhargava, Captian P.B.Joag together with other specialized teachers.

For course related queries such as eligibility, highlights of this course, curriculum and employment opportunities etc., the following official may be contacted.

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For Registration and fees payment, please click the link [www.linktr.ee/imeim](http://www.linktr.ee/imeim). Also the following URL of Institute of Marine Engineers will provide required information. [https://imare.in/news/ime\(i\)-nmis-online-program-in-ship-management-logistics.aspx](https://imare.in/news/ime(i)-nmis-online-program-in-ship-management-logistics.aspx).