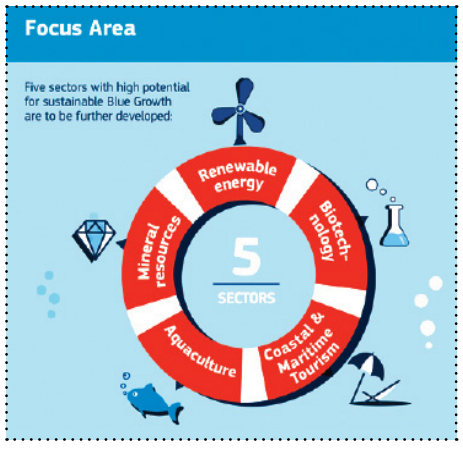
"If the highest aim of a captain were to preserve his ship, he would keep it in port forever" - St. Thomas Aquinas

Blue Economy – Wave 92

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



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

Blue Economy and Ocean Governance :

"A business-as-usual approach will not deliver the long-term ocean health and wealth we need. What's required is a balance between production and protection, people and ocean, and an improved response to the needs of all ocean users, now and in the future", says Jan-Gunnar Wintherat World Recourses institute.

As the demand for space availability in marine environments increases due to the upward trend and intensity of human activities, Marine Spatial Planning (MSP) becomes the key response for accommodating sectoral policies in a way that is both compatible and ecosystem friendly. The book Marine Spatial Planning: Methodologies, Environmental Issues and Current Trends is addressed to people involved in coastal and marine spatial planning and management.

Maritime spatial planning (MSP) - is a mechanism for the integrated management of maritime areas in which a central vision for the future of the area, in conjunction with knowledge of activity interactions and impacts, guides the location, timing, intensity and future development of all activities in the maritime space. It recognizes that seas and oceans are drivers for the economy with great potential for innovation and growth. A comprehensive understanding of the maritime environment is crucial for successful MSP, as is a thorough understanding of how maritime activities impact each other and the environment.

Maritime spatial planning involves identifying possible uses of marine resources and their rationaldistribution, as well as providing sustainable activity in terms of the ecosystem, all of which is performed in the marine environment in order to achieve economic, social and environmental objectives arising from regional and national policies in accordance with international rules and standards, recommended practices and procedures for the protection and preservation of the marine environment.

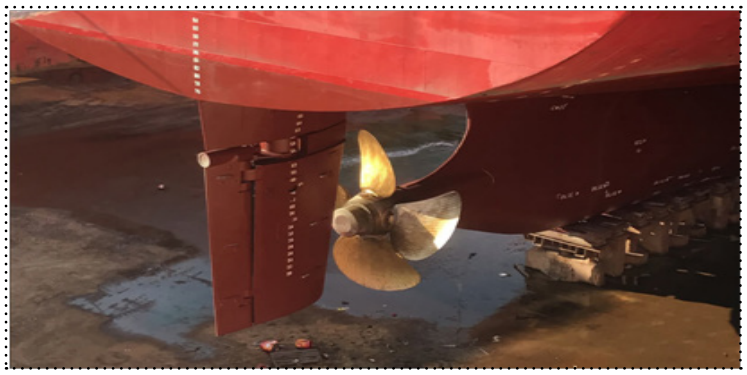
The United Nations Convention on the Law of the Sea Convention (LOSC) can be said to provide a legal basis for MSP by regulating rights and obligations of States in the different maritime zones. The present section argues that to support the effective implementation of MSP, provisions of the LOSC need to be interpreted and applied in light of other instruments of international environmental law. The Convention on Biological Diversity (CBD) and the Espoo Convention respectively are also critical for implementing an ecosystem-based approach to MSP and supporting transboundary consultations on maritime spatial plans.

The LOSC forms the international legal basis for planning oceans and seas and contains a number of critical zoning and management provisions that must be complied with in maritime spatial planning processes. References to management can be found in the provisions on fisheries and conservation of living resources, the regulation of navigation rights and the protection and preservation of the marine environment in internal waters, territorial sea, Exclusive Economic Zone (EEZ) and continental shelf.

In Europe, according to the policy of the European Union, maritime spatial planning involves the process of planning and regulating all human activities in marine areas, including maintaining the good condition of marine ecosystems, as well as marine biodiversity. The process of decision-making is closely interrelated to international global and regional cooperation. This approach is the essence of the maritime policy for both European Union and States in their national and regional maritime relations. This is also a framework for developing actions for better ocean governance.

The integrated management of the marineenvironment includes comprehensive, integratedmanagement of human activities based on theavailable scientific knowledge on ecosystems andtheir dynamics, origin and impact of the activities,which are essential for the health of the marineecosystem, as well as achieving sustainable use ofmarine ecosystem assets and maintaining theintegrity of the marine ecosystem.

MARINE NEWS Redesigned Propeller Blades Increase Fuel Efficiency up to 22%



(Photo courtesy of Berg)

NEW DELHI
Sagar Sandesh News Service

With ship owners and operators looking for practical solutions to lowering CO2 emissions ahead of the IMO's Energy Efficiency Ship Index (EEXI) and Carbon Intensity Indicator (CII) becoming effective, a Swedish propeller manufacturer, Berg Propulsion, says that it is achieving strong results through the redesign of propulsion on existing ships. Berg reports that it was able to achieve up to an overall 22 percent fuel savings in one recent case.

Ship operator and manager Vroon recently approached Berg Propulsion to investigate the possibility of optimizing the propulsion system on its container vessel, the Indian Express. The containership, which was built in 2008, is fitted with a controllable pitch propeller originally manufactured by ZF. The 485-foot long vessel operates in the Mediterranean and recently was sailing to the Persian Gulf. The 13,760 dwt vessel transports up to 1,118 TEU.

"In close cooperation with the shipowner and operator, we analyzed the vessel's current and future operational needs and defined its operation profile," said David Sakandelidze, Berg Propulsion Business Manager – Energy and Efficiency. "Next, the performance of the original propeller blades was benchmarked against the vessel's defined operation profile."

Advanced simulation tools were used to develop a new propeller geometry

Advanced simulation tools were used to develop a new propeller geometry, which modeling showed would achieve superior performance. New blades were designed tailored for the operation, improving efficiency significantly, according to Sakandelidze.

At 12 knots, the new blades achieve up to 50 percent higher efficiency

"Efficiency gains are made for much of the time and, at 12 knots, the new blades achieve up to 50 percent higher efficiency than the ones they replace," he said.

With performance improved at the speeds most commonly required during operations, they anticipate the Indian Express will achieve a 22 percent fuel saving overall, as well as lower emissions that should go farther than the requirements of the IMO's carbon Intensity Initiative goals for 2026.