

## Maritime Forum Essay Final Draft June 2020 Dr Jack Dyer,

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### **Essay question: Over the next decade, how can the maritime sector continue to contribute to realizing the Sustainable Development Goals?**

From surging climate change risks to regulatory uncertainty, prospects of digitisation and the 4<sup>th</sup> Industrial Revolution, sustainability, the circular economy, pollution reduction and fuel conversion pressures, an aging workforce, historically low freight rates and fuel prices, finance access, COVID19 pandemic and subsequently fluctuating economic cycles, the global maritime sector faces unprecedented and complex challenges. Others include increasing societal expectations and pressures to accept past liability, facing direct consequences and contribute more towards environmental, social and economically viable progress. Globally, more are voicing the blue economy's radical potential to resolve our perils and enriching opportunities, provided we act responsibly and sustainably. The World Bank project an increase from US \$1.5 trillion in economic activity and 31,000,000 direct jobs to \$3 trillion and 45,000,000 jobs between 2010-2030. Myriad initiatives are flourishing to capitalize upon this from the European Union's Horizon 2020 and FAO Blue Growth Vision to the Atlantic Strategy;, African Union Integrated Maritime Strategy, Asian Development Bank's Blue Oceans Action Plan, World Bank's PROBLUE, the Commonwealth Blue Charter, Commonwealth Marine Economies Programme across 17 South Pacific and Caribbean nations, 2020 Pacific Ocean Pathway and individual nation examples e.g. Seychelles and Mauritius Blue Economy Roadmaps and South Africa's Operation Phakisa. The private sector is mobilising via initiatives including the Blue Prosperity Coalition; the World Ocean Council and myriad events from Blue Economy Caribbean to events in Kenya and Tunisia or the 2019 Paris Sustainable Ocean Summit.

In response the maritime sector needs to radically accelerate progress towards the Sustainable Development Goals over the next decade. Although stakeholders have evolved in greater emergent risk awareness; factors including asymmetrical information or limited research, lack of first mover advantage, high sunk costs or entry barriers, inexperience and insufficient willingness or consciousness of opportunities, actual implementation needs to be scaled up. With sufficient prioritization of their blue economy roles including facilitating research,

innovation, entrepreneurship and exploiting opportunities/ideas from others including the youth, communities and their labour force; they can mobilise the resources, passion and energy needed to overcome many challenges. The maritime sector can initially reposition ports, vessels and maritime supply chains to attract new and restructured investment capital including new trade opportunities. Through sufficient financial and policy incentives, reputational marketing and positioning/provision of resources and facilities, these areas and vessels can contribute towards blue economy (SDG 14), sustainable cities and communities (SDG 11), employment (8) and the circular economy (12) implementation. Maritime supply chains and economies can strive towards greener, more climate-resilient ports and vessels (SDG 13), willing to experiment/uplink to grids with marine renewable energy. This includes considering prototype projects, adequate reserves and revised climateproofing technical standards; to ensure business as usual under climate change, whilst supporting entire communities and livelihoods via viable long-term propositions.

Marine Ecological capital needs to be adequately invested in via sanctuaries and extended supply chain traceability/product lifecycle responsibility across principles of zero waste and the circular economy (SDG 12), futureproofing against disruption and reducing scarce resource constraint pressures. Finance options include climate funds, debt swaps, aid, diaspora funding and remittances; insurance, blended financing, taxes; tourism/conservation levies and sovereign wealth funds. They include maritime stock exchanges with blue carbon and ocean economy bonds, shares, venture capital and crowd sourcing. These need to be accompanied by ring-fenced safeguarding measures to ensure transparency and accountability so funds are channeled directly into blue economy related policies including climate-resilient insurance against disasters e.g. South Pacific's PCARFI. Futureproofed ports and shipping can reposition to exploit emerging sectors through preferential freights and access treatment; freeing up valuable land and marine spatial planning zones/regulations in partnerships with hinterlands, NGO's, local communities and others, no longer confined to ocean economy trade opportunities and situational presence of traditional fishing, tourism, logistics and manufacturing industries. Prospects for marine renewable energy; seawater and seabed mining; marine conservation; drones; digitisation and the 4<sup>th</sup> Industrial Revolution; nautical, marine and ecotourism, aquaculture, biotechnology, desalination, marine research, blue carbon, eco sanctuaries and even artificial cities can be radically augmented and flourish, with reconfigured maritime supply chains and stakeholder support including authorization, sites, incentives and market/marketing support. Small harbours can be revived as supporting local communities.

Subsequently increasing digital disruption, supporting “big data”, modern communications, sensors, UUV’s, automation, blockchain processes against cybersecurity; exploiting the Internet of Things and other technology can reduce costs; increase fuel efficiency, safety, security and eco-sustainability via efficient resources and vessel/logistics improvements. Subsequent automation, drones and AUV’s/UUV’s can facilitate proactive risk management for climate change; oil spills, navigation accidents and marine pollution reduction; whilst resolving ocean governance challenges with increasingly finite labour, fiscal and other resources. Eco-capital and restoration/biotechnology and MRE artificial reefs can invert biodiversity and extinction losses concurrently. Simultaneously for every industry supported; its essential to support continuous reskilling and upskilling across traditional maritime and other sector education and training to counter opportunity cost, business and job losses among traditional seafarers, fishing, offshore oil and gas and other sectors. Special youth empowerment and career programmes can facilitate this. Simulators, online and distance learning including social media and other processes can achieve continuous professional lifetime learning rather than being physical campus bound. Further innovation is attainable through providing guidance, support, experience, markets and sites for blue accelerator incubator hubs and collective stakeholder networks e.g. San Diego Port, Portugal Blue Lab Accelerator Network and UNDP Blue Labs.

Only through these measures can the maritime sector strive to implement the SDG’s specifically, especially Goals 8-14 directly and 2 indirectly (aquaculture), 7 (ocean energy) and 4 (desalination). Priorities need to move beyond pilot scale to commercialisation. Successful implementation remains conditional upon sufficient resources allocated, following stakeholder requirements, conducting ocean resource assessments, markets and ecological surveys, ensuring sufficient mass, individual, community and investor awareness. It also requires sufficient priorities in research, training and augmented institutional capacity rewarding the maritime sector, blue economy, shipping and supply chain decarbonisation, whilst penalising fossil fuel sector-based activities, sources and stakeholders. With these interventions and integrated partnerships (SDG 17); can maritime stakeholders accelerate progress towards futureproofing a climate-resilient blue economy, exploiting opportunities including digital disruption; to achieve Sustainable Development Goals.