

MARITIME WATCH AUGUST 2023

PAKISTAN'S PREMIER MONTHLY MARITIME RESEARCH AND NEWS BULLETIN

Volume: 04 Issue No. 06 (August 2023) ISSN # 2308-7951





Serving the Nation Since 1956



Ministry of Defence Production

KARACHI SHIPYARD & ENGINEERING WORKS LTD



A Symbol of Excellence in Shipbuilding!



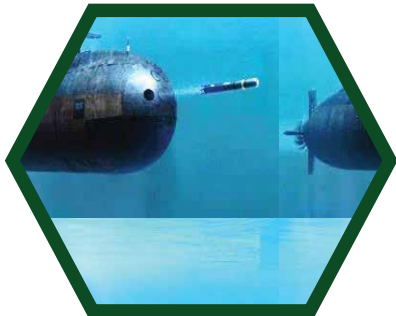
SHIP BUILDING



SHIP REPAIR



GENERAL ENGINEERING



SUBMARINE CONSTRUCTION



LABORATORY



SHIPYARD TRAINING SCHOOL

KARACHI SHIPYARD & ENGINEERING WORKS LIMITED

West Wharf, PN Dockyard Road, Karachi 74000

Tel: +92- 21-9921 4045-64 (20 Lines)

Fax: +92-21- 9921 4020, 99214030

✉ @Shipyardskarachi

📺 Karachi Shipyards Official

ISO 9001 : 2015



ISO 14001 : 2015



ISO 45001 : 2018



TABLE OF CONTENTS

01 Interview **01-06**

02 NIMA News **07-10**

03 National News **11-17**

04 International News **18-25**

Maritime Trade & Economy 18-19
Ports & Shipping 20-22
Maritime Safety, Security and Technology 23-24
Maritime Environment Policy & Law 25

05 World Media **26-28**

Marine Life May Be Headed to Higher Latitudes 26-28
By Mackenzie White

06 Opinion Article **29-34**

Balancing Act: Sustainable Water Management For Pakistan's Indus Delta 29-30
By Ghazi Salahuddin

Editorial Board

Patron-in-Chief

Vice Admiral (Retd.) Ahmed Saeed HI (M) DG NIMA

Chief Editor

Commodore (Retd.) Ali Abbas SI (M)
Director NIMA-K

Associate Editor

Dr. Ambreen Afzal
Madiha Naim

Assistant Editor

Ms. Sobia
Muhammad Zubair

ABOUT US

NIMA is working as a national think tank acting as a repository of maritime information with major focus on; applied research for comprehensive solutions to Pakistan's maritime issues, taking maritime education initiatives, conserving the history and culture, advocating best maritime practices, raising awareness & capacity building, and publishing research of highest international standards.

MISSION

To function as a premier maritime think tank of Pakistan in policy research, maintaining repository of authentic data through research / analysis aimed at providing comprehensive solutions to relevant customers / stakeholders, while promoting Pakistan's Maritime Interests.

WORK

The significance of maritime domain is the economic development of the country and the potential of our maritime sector are not well understood in Pakistan. NIMA engages eminent and renowned researchers to extract concrete policy recommendations. It endeavors continuously to create awareness through seminars, conferences, workshops, writing research papers and other maritime related activities challenges of 21st century for Pakistan.

Enhancing Traceability and Transparency in Fisheries to Combat Illegal, Unreported, and Unregulated Fishing Practices in Pakistan 31-32

By Shoaib Abdul Razzaque

First Cargo Ship Powered By 'Green Methanol' Has Begun Maiden Voyage 33

By Mr. Kamran Hashmi

Unsustainable Fishing Practices and the Impact of Ghost Gear on Marine Environments 34

By Summaiya Abid

07 Letter to the Editor **35-36**

08 Maritime Directory **37**

09 Book Review **38**

09 Books to Read **39**

10 Port Activity **40-41**

11 Tide Times for Port **42-43**



MARITIME WATCH

Pakistan's Premier English Language Monthly Maritime News Digest.
Published by National Institute of Maritime Affairs (NIMA) Karachi.

To Subscribe:

Subscriptions to Maritime Watch (12 printed issues) for one year are available for 1800Rs/.

Drawn your check in favour of NCMPR Resource Fund.

Allied Bank Limited, Youth Branch Stadium Road, Karachi.

Branch Code:0971

Account No:0010005881820333

IBAN:PK32ABPA0010005881820333 (for Online Transfer)

Email: maritimewatch@bahria.edu.pk

Circulation: SM Faheem(UDC)

smfaheem.ncmpr@bahria.edu.pk

Disclaimer

NIMA maintains every effort towards accuracy of facts and figures. The Publisher is not liable for any errors or omissions. Relevant references/Sources have been mentioned.

© All information compiled and printed is copyright material. No part of Maritime Watch may be reprinted, reproduced or otherwise without permission of the publisher, National Institute of Maritime Affairs - Karachi



CPEC: A DECADE DOWNUNDER

Recently the government has celebrated 10 years of CPEC project, encompassing significant infrastructure and economic development. The project was widely tipped as the game changer in the region. There cannot be two opinions about the importance of connectivity and requisite infrastructure for the economic development of a country. CPEC and Gwadar Port provided Pakistan with the opportunity to achieve both of these. The building of the “Silk Road Economic Belt and 21st Century Maritime Silk Road” popularly known as the One Belt, One Road (OBOR) initiative, was tipped to have a far-reaching impact on global and regional politics. For the OBOR project, Chinese companies heavily have been incentivized by the Chinese government to participate in the construction of ports and other infrastructure in the Indian Ocean Region (IOR). This policy provided a great opportunity to develop maritime and port infrastructure.

It is heartening to note the recent pledge of both countries, during the visit of the Chinese Vice Premier, to rejuvenate the pace of work of various projects of CPEC which unfortunately got slowed down in the past few years. The tenth anniversary of the project represents an important milestone in the history of Pak-China bilateral relations. The significant increase in infrastructure construction, electric-power generation, trade facilitation, and economic growth over the past ten years has given hope for a successful future despite many hostilities (both home and abroad) and apprehensions about the project.

We also have to be cognizant of the fact that Pakistan owes quite a handsome amount to Chinese power plants, which keep growing with time. Government must engage Chinese authorities for further delay in debt payment of softer terms. In the meantime, we need to focus on the realization of the full potential of Gwadar Port and the associated industrial development for generating much-needed revenue. The importance of maritime trade has always been vital throughout history because the majority of world trade passes through maritime routes. CPEC through Gwadar Port provides smoother connectivity for both China and Pakistan in all types of trade, especially for Energy security. It promises for improved regional connectivity, job creation, and social uplift of nearby communities. Gwadar Port is the pearl of the CPEC, which enjoys a unique geo-strategic location. It has the potential to become a future hub with its dual role as a transshipment as well as a transit port. It is therefore critical to create essential facilities and infrastructure as well as ensure its maritime security so as to fully benefit from this tremendous economic activity. The same is now required to be done at a much faster pace to make up for delayed progress made in the latter half of the decade.

For Pakistan, over 90% of our trade by volume is carried out via the sea. The quantum of this trade is likely to increase once the Chinese transit trade start coming through CPEC/Gwadar Port. It potentially provides a shorter route for transit trade of Central Asian Republics, subject to various politico-security factors. CPEC is likely to provide further impetus for the development of our maritime sectors such as enhanced shipping and port activities, ancillary services, financial institutions, shipbuilding, ship repair, fisheries, coastal tourism, etc. Such a boom can lead to the creation of business opportunities and employment prospects. There are numerous challenges faced by the maritime component of CPEC including Gwadar port, both internally as well as externally, which automatically put it under great stress. The success of the CPEC and the Gwadar Port project is linked to two primary factors: development of hi-tech/efficient port infrastructure and the safe/secure maritime environment in our areas of interest. Subject to attending these vital factors, Gwadar has the potential to become Pakistan’s economic hub in the region.

Commodore (Retd.) Ali Abbas SI (M)
Director NIMA-K



A Conversation with Dr. Quddusi B. Kazmi

Ex-Director, Marine Reference Collection, and Resource Center
University of Karachi



By Miss Hajra

Question asked by NIMA researcher:

1. How would you describe the current state of the world's oceans and the biggest challenges they face today?

The Current state of the world's oceans is recognized globally, regionally, and nationally but mostly it is up to policies only waiting to be turned into actions, to build a global community that takes meaningful action to protect and restore our oceans, to mobilize global society to act towards 'the ocean we need. It is a recognized fact that the oceans are our life support, being home to an extraordinary variety of life. Much of this life is essential to sustain people's livelihoods and ensure food security, focused on the role of the scientific community, to enable the transformation of humankind's relationship with the oceans, the biggest challenges they face today is their protection and restoration since the healthy oceans and seas are essential to human existence and life on Earth.

2. In your opinion, what are the most promising strategies or solutions for addressing ocean pollution and its impact on marine ecosystems?

In the International forum, studies of various types of ocean pollution present a complex picture of the interaction between natural and anthropogenic sources, particularly nitrogen, phosphorus, medicament, and plastics pollution; and despite the global significance of ocean pollution, observations remain limited. In order to be able to support actions against ocean pollution we require urgently a more resourced and systematic approach to observations and synthesis of ocean pollution. Strictly follow the law of the sea-there is a body of international law governing the rights and duties of states in maritime environments. It concerns matters such as navigational rights, sea mineral claims, and coastal waters jurisdiction.



3. How does climate change influence the health and stability of marine ecosystems, and what can be done to mitigate these effects?

Nature has provided us with the OCEAN to act as a cushion to blow off most of the soaked-up carbon dioxide and excess seawater chemistry and the ecosystems that rely on it, particularly bad news for shellfish sheat human activities have produced, but at a cost of marine life, the climate disruption to our seas looks to get to worsen causing heat waves and acidification which has some significant effects fouch as oysters, clams, sea urchins, shallow water corals, deep-sea corals and calcareous plankton and other forms of sea life that use the mineral calcium carbonate to form their shells and exoskeletons. Rising temperatures may cause changes to interconnected and complex systems of food webs that are hard to predict. Fisheries in some areas might actually get a boost as valuable different species are driven into their nets. But, overall, the impact is likely to be bad.

As climate change continues, many scientists believe it is inevitable that massive ice sheets in Antarctica will collapse and melt entirely, eventually pouring enough water into the oceans to raise global sea levels by several meters, causing beaches and dune environments to face more severe and frequent flooding and erosion, while sensitive freshwater habitats including mudflats and marshes needed for bird species to breed may be swamped with seawater.

Climate change is gradually draining oxygen from the seas. This may affect Ocean creatures that rely on oxygen dissolved in seawater

Another important issue is the ocean current system which is vulnerable to the effects of climate change. Melting ice interferes with this system. Without the same continuous driving downward force, the whole global cycle may weaken.

Mitigation suggestions

- a. Limit greenhouse gas emissions
- b. Improve human adaptation and the most exerted need is
- c. Strengthen scientific research
- d. Plantation of mangrove forest

4. In your opinion, what innovative technologies or research initiatives are helping us better understand and conserve the ocean? Could you provide examples?

Change the biodegradable material

Lost or abandoned fishing gear is a major source of pollution (as we know nets, traps, and trawls are made of industrial-grade plastics, and take hundreds of years to degrade, killing marine life in the process). There are now said to be 46,000 pieces of plastic in every square mile of the ocean. Chemists at the University of Cornell USA have developed a polymer that degrades quickly.



Attach a filter to a washing machine

We know that millions of tiny particles of plastic are released into drains, through washing machines and water treatment plants, and out into our rivers, lakes, and oceans, where they cause great damage.

Vessel to be fuelled by recycled plastic

A French organization has developed its vessel is the first in its kind in the world to be fuelled by plastic waste.

5. Can you discuss the relationship between the ocean and coastal communities, and how their well-being is interconnected?

Some coastal ecosystems are already affected by rising temperatures, sea level rise, and extreme weather events. In addition, in several places nationwide, there are large dead zones where marine life cannot live. In these areas, nutrient runoff indirectly causes low oxygen levels in the water.

Avoid Fish Loss and Wastage

An estimated 27 percent of landed fish is lost or wasted between landing and consumption.

Promote small-scale fisheries

Small-scale fisheries supply almost half of the world's seafood stock. Small-scale fisheries are, however, among others, disadvantaged by a lack of access to markets, and a lack of pricing power.

Develop social enterprise companies following “one man's trash is another man's treasure”

It is already being applied in the world to develop social enterprise companies for a creative way to tackle the beach pollution problem. Our children can make toys from discarded flip-flop shoes soles, and the children's mothers may be motivated to remake the flip-flop into products to sell for extra money. when discarded flip-flops that wash up on our shores can be collected and turned beautiful pieces of art and functional products.

Plastics seem like an unimportant piece of trash to most, but several innovators are tackling plastic pollution. But according to an estimated figure 100,000 marine mammals die from plastic pollution each year, the result of the 8 million tons of plastic that end up in the ocean every year. It is now clearer than ever that plastic pollution is a major threat to the ocean; this waste can be remade into useful, sustainable materials and products.

Plastic alternative

Seaweed using techniques invented by a scientist Dr. Noryawati Mulyono farmed seaweed can replace plastic to create packaging.

Coastal development



Coastal development may have effects on the fisheries industry and water quality for human consumption. It may also pose a threat to biodiversity.

Framework for preparing for anticipated effects of storm surge disasters

Coastal communities are vulnerable to storm surges and flood disasters. These storms may cause damage to coastal habitats, undermining roads, bridges, buildings, and pipelines.

Identifying vulnerable population groups can help prioritize resources for the most needed communities and a framework can help reduce the public fatality, health, and economic burden.

Promote marine and brackish aquaculture

It is an already realized fact that through aquaculture, our oceans and seas hold huge potential to provide us with increased amounts of healthy and nutritious food. Education, research, policies and development are the means to promote aquaculture.

Education in coastal communities

It is widely recognized that children in coastal communities are often not able to access school and college. Their needs have too often been overlooked. We now need to ensure that every child, in the coastal areas, has the same opportunities as those who are fortunate to live in cities.

6. What are your thoughts on marine protected areas (MPAs) and their effectiveness in conserving biodiversity? Are there any notable success stories?

I do understand that the purpose of an MPA is to protect and recover rare, threatened and important habitats and species from damage caused by nature or human activities. Fighting for a cleaner, better-protected, healthier ocean marine protected areas (MPAs) around a maritime country are the need of the hour. There are many notable success stories, Hong Kong SAR, China are on the top of the list but we should-highlight our Astola Island declared Pakistan's first Marine Protected Area for the first time in the history of Pakistan. Hopefully Pakistan will increase its Marine Protected Areas (MPAs) by ten percent soon to preserve biodiversity resources.

7. How do you see the future of ocean exploration and our understanding of the deep sea evolving in the coming years?

Exploring and mapping the oceans will help us fill gaps to better understand planetary-scale processes. Improved knowledge of the deep sea will help us sustainably manage and use ocean resources.

8. Are there any lesser-known or underrepresented issues concerning the ocean that you believe should receive more attention and action?

Yes -1) Study of exotic species,2) extirpation or the termination of a species (or other taxon) in our maritime zone, though it still exists elsewhere.3) expansion of offshore renewable energy



9. How can individuals make a positive impact on ocean conservation in their daily lives? Are there any practical tips or suggestions you can share?

By reducing Carbon footprint

Individuals can reduce their carbon footprint by adopting some simple measures.

By Changing diet

Eat sustainable seafood. It is a renewable resource that requires minimal fresh-water to produce and emits less carbon dioxide than land-based proteins like beef.

By avoiding ocean-harming products

There are many products directly linked to harming endangered or threatened species. For example, avoid cosmetics that contain shark liver oil, jewelry made of coral or sea turtle shells, and souvenir shells of conchs, nautilus, and other animals.

By Voting on ocean issue

Electing public officials that support good ocean policies can help us protect marine life and our oceans.

By exploring the oceans

“People protect what they love. “said by Jacques-Yves Cousteau. Exploring the oceans around yourself, at low tide, or by boat, bird-watching, scuba diving, and snorkeling Even if not living near the ocean, by visiting the local lake or river to learn how your watershed connects to the ocean. There are plenty of online opportunities to explore the oceans, too- media talks, lectures, seminars, conferences, symposia, popular articles, Google, Facebook, Instagram, Twitter, and YouTube.

10. Share your Ocean Heroics with Friends, Family and Coworkers

Throughout my career as Director of Marine Reference Collection and Resource Centre, University of Karachi and Professor of Zoology, Department of Zoology, University of Karachi was involved and completed in several marine biodiversity and fisheries projects, both mega and small projects, one as Resource Person in the assessment and compilation of Pakistan Freshwater biodiversity Assessments Report 2004-2005 to detect increasing risk of extinction. Source of numerous invited lectures, newspaper articles, popular articles, and TV talks organized and attended several science conferences. Signed MOU with the Singapore National University for exchange of students. Remained Member of several academic bodies. Research Accomplishments- has over 200 substantial publications, including international and national peer-reviewed publications and, 46 international and National conference papers 15 books, the printing of one funded by FAO, one HEC monograph, and one student guide manual, one e- book, ever first e-book by the Zoological Society of Pakistan; co- edited 3 proceedings of conferences; co-edited Urdu and English Newsletter of my Centre and edited a biannual Journal " The Pakistan Journal of Marine Sciences". Awarded 2 gold medals and Life Time Achievement Award from scientific organizations, a Best Paper Award, a Star Woman of the Year Award, a



travel grant to work at the British NH Museum, and two consecutive Productivity Awards of the Ministry of Science and Technology, Pakistan. Guided M.Sc., MAS, MPhil, and Ph.D. theses, one of them a Higher Education Commission Indigenous Scholarship holder, and one for the Kuwait University on the hermit crabs of Kuwait.

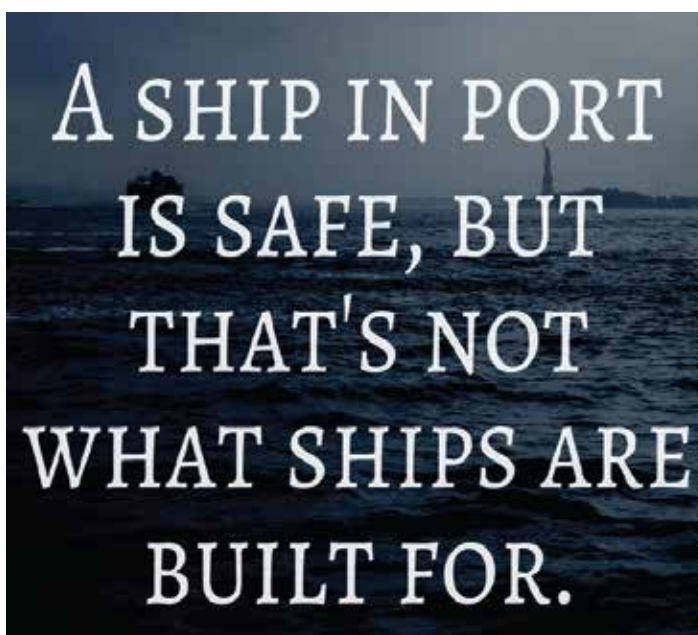
My latest accomplishment in Marine Biodiversity is an e-book on the Marine faunal biodiversity of Pakistan that will not only add to our knowledge of Pakistani marine fauna but will tell us about the health of the ocean of the country. This compilation of Pakistani marine fauna spans from the early nineteenth century to 2022 using databases of historical and contemporary location records of species and my new records indicating that a great number of species has ceased to exist in our local waters, though they still exist elsewhere leading to local extinction. Research Interest Score 1,072; Citations 855; h-index 14

11. In your opinion, what is the role of education and public awareness in promoting ocean conservation, and how can we encourage more people to care about the ocean?

Public awareness Leave nothing behind. As beach crowds increase, so does the amount of trash left behind or blown away. Don't let your day outside contribute to the destruction of our oceans. Remember to leave nothing behind but your footprints - collect and dispose of your trash.

Education, Follow the Sampling protocol for assessment of marine diversity, Project-based competition for youth, including university and college students, student clubs, high school students, youth-led organizations, and startups, Arrange events/exhibitions/galas/festivals Collaborative Research .In the end together we can act for ocean health and the good of our planet.

Our time to make a difference is not tomorrow, it's now. We must create ocean-positive action today- Carlos Drews





CPEC – The Road to Prosperity and Growth Amidst Challenges



July 7, National Institute of Maritime Affairs (NIMA) and Bahria University jointly organized an international seminar on July 07, 2023, titled “CPEC – The Road to Prosperity and Growth Amidst Challenges” to mark the 10-year celebrations of the China-Pakistan Economic Corridor. Prof. Ahsan Iqbal, Federal Minister MoPD&SI graced the occasion as a Chief Guest.

While addressing the audience, the Minister highlighted how CPEC has emerged as a game-changer for both Pakistan and China, heralding a new era of economic prosperity and growth. He expressed his confidence that through CPEC, Pakistan shall be able to secure the development opportunities which were overlooked in the past.

Vice Admiral (Retd) Asif Khaliq HI(M), Rector, Bahria University presented his welcome note while Vice Admiral (Retd) Ahmed Saeed HI (M), DG NIMA set the stage for the Seminar. Mr. Muhammad Aurangzeb, CEO HBL, and Mr. Faisal Zahid Malik, CEO Observer Group addressed the audience as the main sponsor and media partner respectively. H.E. Mr. Moinul Haq, Ambassador of Pakistan to China delivered a virtual message, followed by the keynote address by H.E. Ms. Pang Chunxue, Chinese Ambassador.

Dr. Hassan Daud Butt acted as the moderator for the session. The session began with Ambassador (Retd) Masood Khalid, Former Ambassador to China appreciating the support of China in developing the power sector of Pakistan through CPEC. He also promoted the formation of academic and professional consortiums among the countries. Mr. Wang Hui, Chairman APCEA acknowledged the potential of Pakistan’s energy sector in its growth and emphasized the need to develop cheaper and renewable resources by engaging local enterprises. Ms. Ayla Majid, CEO of Planetive explained how a lack of policy readiness has cost Pakistan billions. She emphasized the importance of chip fabrication industry and renewable technologies for exponential growth in Pakistan.

Dr. Nadeem Javaid, Chief Economist focused on the difficulties of long-term planning regarding CPEC and called for increased regional cooperation. Dr. Javaid underlined the necessity for policy coordination, stakeholder involvement, and infrastructure development for making CPEC a success. Mr. Sajeed Aslam from ACCA commended the productive behavior of the Chinese workforce in Pakistan and called for increased collaborative learning. Dr. Hong Zhang of Howard University highlighted the need for industrial symbiosis and sustainable operations for the success of mega-projects such as CPEC.

Prof. Dr. Sander Schroevers emphasized the value of fostering effective academic and professional collaboration between China and Pakistan. Cdre (Retd) Baber Bilal Haider SI(M) from NIMA, while emphasizing on maritime security, stressed on the need for infrastructure development and increased connectivity with Gwadar Port.



The insights shared by the esteemed panelists during the seminar shed light on various facets of CPEC, providing a comprehensive understanding of its challenges and prospects. The event was well-attended by subject matter specialists, government officials, faculty members, students, and key maritime stakeholders. In the end, the moderator thanked the guest speakers and participants for their keen interest and appreciated the organizers for making this event rewarding and successful.

NIMA Signs Memorandum of Understanding to Collaborate with the Centre of Research and Innovation in Maritime Affairs (CRIMA)



July 17, A Memorandum of Understanding (MoU) was signed between the National Institute of Maritime Affairs (NIMA) and the Centre of Research and Innovation in Maritime Affairs (CRIMA) on 17 July 23 at NIMA Head Office at Bahria University, Islamabad. The documents were duly endorsed with the signatures of Vice Admiral (Retd) Ahmed Saeed HI(M), DG NIMA, and Dr. Sajid Mahmood Shahzad, Chairman CRIMA (VC Minhaj University, Lahore).

By signing the MoU, the two parties agreed to establish a formal mechanism of collaboration and cooperation to expand the research and academic activities between the two institutions and to promote quality research. It will also help in synergizing joint activities related to maritime affairs of Pakistan.

On the occasion, DG NIMA assured wholehearted support to CRIMA in the conduct of research, policy analysis, and the advancement of the maritime interests of Pakistan. Chairman CRIMA said that the MoU will greatly help in generating awareness amongst the youth of Pakistan through jointly coordinated educational activities.

NIMA Research Delegation Visits Port Qasim Authority for an Insight into Port Handling and Performance

July 26, NIMA team of researchers headed by Commodore (Retd) Ali Abbas SI (M), Director NIMA-K along with the NIMA researcher team visited Port Qasim Authority on 26th July. The team was welcomed by Syed Hasan Nasir Shah HI(M) (R), Chairman PQA welcomed the team along with Rear Admiral Shahid, DG PQA, Captain Muhammad Imran Masood, Operational Manager, and other officials.

Chairman PQA briefed on the strategic aspects of the port and some other important aspects of Pakistan's maritime development. Later Rear Admiral Shahid, DG PQA, delivered an insightful and comprehensive presentation on the port's handling capabilities and performance. He highlighted the port's exceptional track record in handling various types of cargo, emphasizing its commitment to efficient and environmentally responsible operations. According to the latest World Bank Cargo Port Performance Index (CPP Index), PQA



has attained a remarkable rank of 90 out of 348 major ports worldwide. This achievement is a testament to the dedication and hard work of the port authorities in ensuring seamless operations and maintaining global standards.

The visit also included a tour of the Marine Pollution control centre (MPCC) and a channel cruise, allowing the delegation to witness firsthand the seamless coordination of incoming and outgoing shipments, as well as witness the safety measures in place to ensure smooth operations.

The purpose of the visit was to gain a deeper understanding of Port Qasim Authority's operations, explore potential collaborations, and exchange knowledge on best practices in port management and performance optimization. The exchange of souvenirs took place between both officials.

ICRC (International Committee of Red Cross) Delegation Visits NIMA



July 26, Five member delegation from ICRC (International committee of Red Cross) headed by Col. Qadeer including, Wing Commander Mansoor Ahmed, Squadron Leader Nadeem Hussain, Flight Lieutenant Ali Raza, Flying Officer Hamza Bashir, and Flying Officer Faizullah Baig visited NIMA.

Delegation was briefed about NIMA activities by NIMA Senior Coordinator Lt/Cdr (Retd) Kamran Hashmi. Delegation also had interactive session with Director IOSC Cdre (Retd) Babar Bilal Haider SI (M).



Round Table on Defensive, Offensive Economics



August 1, A Round Table Conference titled “Defensive and Offensive Economics (Non-Traditional Security)” led by the National Security Division (NSD) of the Government of Pakistan in collaboration with the National Institute of Maritime Affairs was organized at Bahria University, Islamabad. Engr. Aamir Hasan, Secretary NSD graced the occasion as the Chief Guest. The event was moderated by Mr. Babar Bilal Haider, Director Indian Ocean Study Centre, and NIMA.

Vice Admiral (Retd) Ahmed Saeed HI(M), DG NIMA formally commenced the proceedings by highlighting the importance of non-traditional maritime security threats vis-à-vis a resilient national economy. The Chief Guest, Engr. Aamir Hasan, Secretary NSD emphasized on identifying and strengthening the underlying factors of defensive and offensive economics for a stronger sovereign state. He called for the development of a blue roadmap to achieve said goals. He also appreciated NIMA and NSD for organizing discourse on the topic.

Earlier, Mr. Faheem Sardar, Senior Policy Specialist in Non-Traditional Security at NSD, while addressing the concept of Defensive & Offensive Economics, shed light on strategies that nations can adopt to safeguard their interests and build resilience against shocks. Cdre (Retd) Bilal Abdul Nasir SI(M), Director NIMA Islamabad dilated upon non-traditional threats in relation to maritime affairs and Blue Economy. He concluded that we need to harness the true potential of maritime economy.



**Publish your Advertisement in the
Maritime Watch**

Call Us: +92 332 2810640

or

Email Us: maritimewatch@bahria.edu.pk



Pakistan, China Join Hands to Protect Indus Delta against Climate Change



July 4, Researchers from Pakistan and China are working together on the challenges and solutions for the sustainable development of the Indus Delta.

On the Progress Meeting of the UN Ocean Decade ‘Mega-Delta Programme’ hosted last month by the State Key Laboratory of Estuarine and Coastal Research (SKLEC), East China Normal University, scientists from Pakistan, China and several other countries shared their progress in research and announced that online archives on the scientific data for major river deltas will be set up to share with partners. Known as the vertebra of Pakistan’s ecology and economy, the Indus Delta is the fifth largest in the world and home to the seventh biggest mangrove forest.

The complex system of swamps, mudflats, and streams are home to rice, cotton, and wheat plants, fish and prawn, mangrove forests, and wild animals, offering various sources of income to the inhabitants. However, recent years has witnessed a sharp decrease in sand and water supply to the delta area. A World Bank study shows that the sediment that reaches the delta has declined from an estimated 270 million tonnes per year at pre-development levels to 13 million tonnes in 2019.

The rising sea level and offshore storm surge have triggered beach erosion and salt-water encroachment, leading to the degradation and death of mangrove forests and decreased production of fish and shrimp. The Third Pole, a platform dedicated to promoting information and discussion about the Himalayan watershed and the rivers that originate there, released that around 1.2 million people from the Indus Delta have already migrated to

Karachi. According to Dr. Samina Kidwai, Director of the National Institute of Oceanography, Pakistan, the challenges faced at the Indus River Delta include coastal erosion, mangrove degradation and decreased fishery production.” Comprehensive management of water and sand resources in the entire drainage basin is required”, said Li Xiuzhen, Professor of Ecology and Deputy Director for International Affairs, State Key Laboratory of Estuarine and Coastal Research, East China Normal University, in an interview with China Economic Net (CEN).

Japanese Firm Proposes Ferry Service from Do Darya to Port Qasim



July 5, A Japanese company has proposed to Sindh Chief Minister Syed Murad Ali Shah the idea of starting a ferry service from Do Darya in Clifton to Port Qasim along with the development of other water sports facilities at different barrages and lakes in the province. Official sources said that the proposal was presented by Yamaha Japan’s Yoshiyuki ITO, who is responsible for Central Asia and the Middle East, during a meeting with the CM on Tuesday. They said that the CM told the Japanese company official that there was a great scope to develop water sports facilities at Keenjhar, Guddu, Sukkur and Kotri Barrages in collaboration with Yamaha Pakistan. Mr Shah said that these facilities could be established through the private sector. The visiting Yamaha representative told the CM that a ferry service could be established from Do Darya to Port Qasim for transport facilities and recreation.

Murad highlights scope of developing water sports facilities at Keenjhar, Guddu, Sukkur and Kotri barrages. He said that Yahama WaveRunners, technically known as Personal Watercraft (PWC) or water scooters, were the best sports. It may be recalled that the CM had



earlier said that the development of a jetty at Seaview was being planned to start ferry service from the Clifton area to the newly developed Manora waterfront beach. However, sources said that work on the development of the jetty had yet to start.

KPT Raises Port Charges after Two Decades



July 6, Amid claims of taking all the stakeholders on board, the Karachi Port Trust (KPT) has increased the port charges after a gap of 20 years with immediate effect. Giving justification for the hike, the KPT on Wednesday said over the past two decades, the costs of operations, maintenance and modernisation have significantly increased due to the prevailing inflation and the escalation of the US dollar. These factors, coupled with the need to adapt to evolving market demands and address infrastructure challenges have necessitated a tariff adjustment, added the KPT in a press statement. It said the wet charges were reduced in the years 2003, 2006 and 2010 compared to 1994. The wet charges in the revised SRO 2023 are still less for pilotage, port dues and berthing compared to 1994 even though the inflation has significantly increased. "A new slab of gross registered tonnage (GRT) 45,001 to 90,000 has been introduced while capping on Port Dues and Berthing charges on vessels of over 90,000 GRT has also been included to reduce the impact on vessels with high GRT calling at Karachi Port," it explained. While the increase in dry charges may have a marginal impact on certain sectors, the KPT has decided to either maintain or negligibly increase the tariff structure for edible oil, food, grain, wheat, atta, seeds, fertilisers, meal, pulses, poultry feeds, etc to mitigate any significant price hikes. KPT has decreased the tariff on transshipment through the port of Karachi to boost shipping activities. (Credits: Dawn)

FBR Gives Additional Powers to Coast Guards, Maritime Security Agency to Tackle Smuggling



July 11, The Federal Board of Revenue (FBR) has given extraordinary powers to the Pakistan Coast Guards (PCG) and Pakistan Maritime Security Agency (PMSA) to search and arrest suspected smugglers without warrant from the magistrates. The FBR has granted these anti-smuggling powers to the law enforcement agencies under three notification issued on Tuesday. The powers of the PCG and PMSA have been considerably enhanced through new notifications.

Under section 163 (power to search and arrest without warrant) of the Customs Act, the officials would be arrested without warrant any person concerned in such offence or against whom reasonable suspicion exists that he is about to be concerned in such offence. The officials can enter and search without warrant any premises to make an arrest or seize any goods. According to the notifications, officials of the PCG and the PMSA have been empowered to confiscate any goods liable to confiscation under section 157 of the Customs Act 1969. The said officials have also been empowered to screen or X-Ray bodies of suspected persons for detecting secreted goods. Any officer of PCG and the PMSA authorized in this behalf who has reason to believe that any person has committed an offence under Customs Act may arrest such person. The appropriate officer, if he has reason to believe that any person is carrying about himself goods liable to confiscation or any documents relating thereto, may search such person, if he has landed from or is on board or is about to board a vessel within the Pakistan Customs waters.

Under S.R.O. 901(I)/2023 issued by the FBR, the Board has entrusted the officers of the Pakistan Rangers,



Frontier Corps [Balochistan (North/South) and Khyber Pakhtunkhwa (North/South)], operating within their respective jurisdictions, the functions of officers of Customs with immediate effect. This is subject to the conditions that for goods other than notified essential commodities, the functions shall be performed within fifty kilometers of the international borders, but excluding the city municipal limits, customs areas, customs stations, ports, borders customs stations, international airports and bonded warehouses etc. For prevention of smuggling of essential commodities notified under subclause (iv) of clause (s) of section 2 of the Customs Act, 1969 (IV of 1969), such functions shall be performed in the bordering districts of Balochistan adjoining Afghanistan including within city municipal limits and on the following highways in the province of Balochistan. **(Credits: ProPakistani)**

Foreign Companies, Factories are Expected to Relocate to Dhabiji Special Economic Zone

July 11, Many foreign companies and factories of different countries are likely to be relocated to Dhabiji Special Economic Zone. The expected arrival of factories and companies from China, Turkey and Gulf countries will create their cluster in Dhabiji Special Economic Zone, these views were expressed by Special Assistant to the Sindh Chief Minister for Investment and Public Private Partnership Syed Qasim Naveed Qamar while talking to a delegation of local businessmen in his office here on Tuesday.

Qasim Naveed Qamar said that Dhabiji Special Economic Zone is an economic zone with a lot of incentives for investment companies in terms of its prime location and availability of cheapest labor. He said that the Dhabiji Special Economic Zone, located just a few kilometers away from Port Qasim, Karachi Port, Karachi Airport, Main Railway Line and National Highway, will connect its industries and production units not only to all regions of Pakistan but also to countries around the world. It has excellent bonding ability and same is the reason why it is just the beginning and companies from most countries have approached for establishing industries in this zone, he informed. Syed Qasim Naveed said that the Sindh government is trying hard to provide alternative energy and environment-friendly electricity in this zone. He made it clear that Dhabiji Special Economic Zone will prove to be an economic zone with respect of sustainable development.

12th Special Meeting of Joint Cooperation Committee Held in Beijing



July 11, The meeting of 12th (Special) Joint Cooperation Committee (JCC) of China-Pakistan Economic Corridor (CPEC) was held in Beijing on Tuesday. Federal Minister for Planning, Development & Special Initiatives, Prof Ahsan Iqbal & Vice Chairman, National Development & Reform Commission (NDRC), China Mr. Cong Liang co-chaired the meeting. Senior officials and representatives of various Ministries and departments dealing with CPEC matters from both the sides were also present at the occasion. In his remarks, the Minister noted that CPEC is a remarkable endeavor that symbolizes the deep-rooted ties between China and Pakistan. He recalled that this monumental project, initiated under the visionary leadership of President Xi and then Prime Minister of Pakistan Mr. Nawaz Sharif, had been instrumental in transforming the economic landscape of the region. It has fostered connectivity, enhanced trade, and opened up new avenues for shared prosperity.

It is noted that since the government came into power in April 2022 the CPEC projects have been revived which remained halted. Out of total 12 JCC, the Planning Minister Ahsan Iqbal Co-chaired 9th JCC so far. The Chinese authorities have already declared the Minister Planning as 'Mr. CPEC'. The Minister emphasized that CPEC is the topmost national priority of the Pakistan-China All-Weather Strategic Cooperative Partnership and these avenues provided an opportunity to consolidate successes and further enhance potential future cooperation.

He also noted that while numerous milestones had already been achieved, there was a massive potential for



expanding and developing in agriculture, industry, technology and mining sectors. He also conveyed deep appreciation of Prime Minister Shahbaz Sharif for the hard work of the JCC and reiterated Government of Pakistan's commitment to provide consistent policies and conducive environment for Chinese companies and citizens working in Pakistan.

During the meeting, the conveners of the Joint Working Groups (JWGs) on Energy, Transport Infrastructure, and Gwadar Port made presentations highlighting the progress on their specific areas and informed about the future plans of actions. The JCC also highlighted the significance of the key projects for energy and infrastructure development; which are now operational and providing a myriad of opportunities for socio-economic development in Pakistan.

Pakistan Urges Boosting Rescue Mechanisms for Distressed People at Sea



July 15, Pakistan has raised at the UN last month's tragic sinking of an overloaded boat off the Greek coast where 700 people, including Pakistanis, were killed while calling for scaling up rescue operations to save lives. "Mediterranean Sea crossings have become increasingly treacherous," Ambassador Aamir Khan, deputy permanent representative of Pakistan to the UN, told UN Security Council's "Arria-Formula" meeting on 'Refugees and Asylum Seekers crossing borders on Land and At Sea: New Wave of Crisis'. Russia convened the 15-member Council meeting under the format of Arria formula, which is named after a former Venezuelan UN ambassador, Diego Arriva. It is a very informal consultation process which affords the Council the opportunity to hear persons in a confidential, informal setting. In his remarks, the Pakistani envoy highlighted the deadly migrant shipwreck that occurred on June 22, 2023,

as he underscored the need for developing mechanisms for people in distress at sea. "As responsible members of the international community, it is incumbent on us all to ensure the safety and security of migrants, refugees and asylum seekers, uphold international law including maritime law, and enforce the prompt rescue of individuals in distress at sea, regardless of their nationality or circumstances," he said. There were news reports at the time that Greek coastguards were slow in reacting to the distress call from people aboard the sinking ship.

"One life lost is one too many," Ambassador Aamir Khan said, adding, "As civilized nations, it is our responsibility to ensure that no life is lost at anytime, anywhere and under all circumstances. "We must undertake all efforts including by developing a transparent, safe and predictable disembarkation mechanisms for people in distress at sea, while complying with international obligations and without obstructing humanitarian efforts." (Credits: Daily Times)

Accelerating Climate Action: Shaping Pakistan's Future



July 17, WWF-Pakistan hosted a press conference titled "Accelerating Climate Action: Shaping Pakistan's Future" to underscore the urgent need for a robust climate change response from all stakeholders in Pakistan at the Lahore Press Club on Monday, 17 July.

Pakistan's vulnerability to the impacts of climate change has become increasingly evident, as demonstrated by the catastrophic floods of 2022, serving as a stark reminder of the nation's exposure to the climate crisis. The event aimed to engage the media in a dynamic discussion on a nationally driven, globally significant climate change agenda to address the growing impact and risk of climate change on Pakistan.



Mr. Hammad Naqi Khan, Director General of WWF-Pakistan, and the distinguished Dr. Adil Najam, the newly appointed President of WWF International addressed the media. The discussion delved into the critical role Pakistan can play in shaping global climate action, harnessing opportunities, and developing sustainable solutions to mitigate and adapt to the impacts of climate change.

Dr. Adil Najam, a renowned scholar on global climate action, shed light on the profound global challenge that climate change presents and specifically focused on the potential opportunities for Pakistan. As one of the top ten countries most vulnerable to climate change, Dr. Najam explored how Pakistan can transform this challenge into an opportunity through the formulation and implementation of comprehensive climate policies and initiatives. Dr. Najam stated, "Pakistan possesses immense potential to lead the way in climate action, and collective efforts are essential in turning challenges into solutions." This was Dr. Najam's first large-scale media engagement since he assumed the Presidency on July 1, 2023. Hammad Naqi Khan shared insights into WWF-Pakistan's ongoing initiatives aimed at addressing the climate crisis. He highlighted the significance of multi-stakeholder collaboration between government entities, civil society, and businesses in bolstering Pakistan's resilience against extreme weather events. He stated, "Collaboration is at the center of WWF's work and our recently approved Recharge Pakistan project is perhaps the greatest testament to this as it brings together both government and private stakeholders. Only through collaboration and exchange of resources can we forge a path towards a greener and more sustainable future for Pakistan."

The press conference served as a call to action, seeking the commitment of all participants to work collectively towards a future where Pakistan emerges not only as a nation resilient to climate disasters but also as a leading advocate in global climate response.

Seafood Export Reached Highest Ever Level of US \$ 496 Million Despite Global Slowdown

July 19, Pakistan Bureau of Statistics has issued the data of export for the year 2022-2023 which indicates that seafood export has achieved the highest level of US \$ 496 million during 2022-23 beating the previous record of US \$ 451 million during 2017-18. This is considered a big



achievement for the fisheries sector which is facing serious issues of over-exploitation, global slowdown, and decrease in prices of main commodities. Commenting on the achievement, Mr. Saeed Farid, Vice Chairman, of the Pakistan Fisheries Exporter Association (PAKFEA) congratulate fishermen, fish processors, and other stakeholders on achieving the maxima in the export of seafood from Pakistan. He pointed out that the main reason for achieving this high level of export is the depreciation of Pakistan's Rupees against US Dollar which enabled exporters to send seafood commodities that previously could not be exported due to their high prices in the local market. He further added that the seafood processing industry has aligned to international demand after Covid-19 which created a glut in the international seafood market. Now with the opening of the international market, the processors in Pakistan are able to fill in the niche created in the global seafood traded and exported a number of non-traditional fish markets such as cuttlefish, squid, octopus, ivory shell, and other shellfish. He, however, added that because of the ban on the export of seafood to the world's two largest markets, the exact potential of seafood industry cannot be achieved. The export of seafood could be much higher because of the ban on the export of shrimp to the USA due to non-compliance with the Turtle Excluder Device (TED) regulation. This ban is imposed as a follow-up to the visit of US Food and Drug Administration (USFDA) delegation to Pakistan in May 2017. Even after the passage of more than 6 years, authorities in Pakistan are not willing to invite the next mission of US Food and Drug Administration. He further added that another ban was imposed on the export of seafood to European Union countries in 2007. Whereas European Commission has allowed only 3 seafood processing plants to export



seafood products to EU countries on an ad-hoc basis. There is a ban on export from other establishments in Pakistan to the European Union. It is ironic that our competitors like India have 500 establishments that are exporting seafood to European Union countries whereas even our neighbour the Islamic Republic of Iran has 104 establishments that export to EU countries. Despite the passage of about 16 years, authorities in Pakistan are not willing to invite a mission from European Commission to allow export to the registered establishment. He added that there are more than 300 seafood processing establishments under the Pakistan Fish Inspection and Quality Control Act, of 1997 and if these plants are allowed to export their fish products, export can even reach a level of about US \$ 1.00 billion.

Engr. Faisal Iftikhar, former CEO of the Fisheries Development Board and Ex-chairman (PAKFEA) congratulated all stakeholders on achieving the highest export level of seafood. He, however, pointed out that there is a serious shortage of raw materials for the seafood processing plants which are resorted to export to low-value products which is evident from about major decrease in the average unit price (AUP) to a level of 10.61 % despite an increase in the seafood export in 2022-2023. He stressed the need for ensuring high-value raw material for processing which can be achieved by starting aquaculture of high-value fish in the inland waters and starting shrimp and fish farming along the coast of Pakistan. Fisheries Development Board has already demonstrated viable shrimp farming in Pakistan. He stressed that the private sector may come forward and invest in shrimp and fish farming along the coast of Pakistan.

Muhammad Moazzam Khan, Ex-Director General, of the Marine Fisheries Department lauded the achievement of the level of US \$ 496 million seafood export. According to him, this is extremely important that despite major over-exploitation of major fisheries resources and a decrease in the fish landings. The fish processing industry has wisely shifted to the export of shellfish including squids, cuttlefish, octopuses, and shells such as clams, whelks, ivory shells, and razor clams which is providing a boost to seafood exports. He further pointed out that about 200 m. tons of tuna are being transported to the Islamic Republic of Iran through traditional channels. It is estimated that annually tuna valued at US \$ 200 million is being sent to the Islamic Republic of Iran which

is not reflected in the export earnings. There is a need that this traditional trade may be harmonized with national laws which will increase Pakistan's export value to about US \$ 700 million to 1.0 billion.

Committee Formed to Negotiate Framework Agreement with UAE over KPT



July 19, Federal Minister for Finance and Revenue Senator Mohammad Ishaq Dar chaired the meeting of the Cabinet Committee on Inter-Governmental Commercial Transactions (CCoIGCT) on Wednesday. Federal Minister for Maritime Affairs Syed Faisal Ali Subzwari, Federal Minister for Commerce Syed Naveed Qamar, Federal Minister for Power Mr. Khurram Dastgir Khan, Minister of State for Petroleum Mr. Musadik Masood Malik, SAPM on Finance Mr. Tariq Bajwa, SAPM on Revenue Mr. Tariq Mehmood Pasha, Secretary Finance, Secretary Maritime Affairs, Secretary Law & Justice, Secretary Commerce and other senior officers attended the meeting. The CCoIGCT considered summary of Ministry of Maritime Affairs regarding G2G agreement between the Governments of UAE & Pakistan on Cooperation for the Development of Bulk and General Cargo Terminal at East Wharf at Karachi Port Trust (KPT) under Inter-Governmental Commercial Transaction Act, 2022. The Committee after detailed discussion allowed negotiations on Framework Agreement and constituted a committee comprised of Secretary Law & Justice, Secretary Maritime Affairs, representatives from Ministry of Foreign Affairs and Finance to negotiate the draft framework agreement with the Government of UAE.

Two More Karachi Port Terminals to be Signed Off to UAE

July 25, Pakistan gave initial approval on Monday for signing a framework agreement with the United Arab



Emirates (UAE) to hand over two more Karachi port terminals, including the development of a new multipurpose cargo terminal. Federal Minister for Finance Ishaq Dar chaired the meeting of the Cabinet Committee on Intergovernmental Commercial Transactions (CCoIGCT), which made the decision.

The CCoIGCT considered a summary of the Ministry of Maritime Affairs regarding an intergovernmental agreement between the governments of UAE and Pakistan on Cooperation for the Development of Bulk and General Cargo Terminal at East Wharf at Karachi Port under Inter-Governmental Commercial Transaction Act, 2022, according to an announcement by the finance ministry. The committee approved the G2G draft framework agreement for the ratification of the federal cabinet, as stated by the ministry. The agreement will be signed between the governments of the UAE and Pakistan, it added. This will be the second major seaport terminal deal that Pakistan will sign with the UAE in less than two months. After the approval of the cabinet, the government will set up a price negotiation committee for the price discovery. Under the deal, the berths from 11 to 17 will be handed over to the UAE Company, Abu Dhabi Ports, for the development and management of two cargo terminals initially for a period of five years. The general cargo terminal will comprise berths 11 to 13, and the clean terminal will include berths 14 to 17. The new terminal will be managed for handling food cargo and other commodities, including fertiliser. The contract will also include the up-gradation of Pakistan International Container Terminal (PICT) facilities and the development of associated infrastructure. The initial agreement will be signed for a period of five years, which may be extended for as many terms as both the UAE and Pakistan mutually agree. There was a proposal in the ECC to extend the Concession Agreement period to more than five years, said the officials. Pakistan and the UAE have already signed the Concession Agreement for berths 6 to 10 on June 22 at the Karachi Port. **(Credits: Express Tribune)**

A New Ship for Pakistan Navy Launched in Karachi

August 02, the launching ceremony of PN MILGEM Class Ship PNS TARIQ (Design) was held in Karachi Shipyard & Engineering Works (KS&EW). Honorable Prime Minister of the Islamic Republic of Pakistan Mian Muhammad Shehbaz Sharif graced the occasion as Chief

Guest. Vice president Republic of Turkiye H.E Mr. Cevdet Yilmaz also attended the ceremony as Guest of Honour. PN MILGEM Class ships are the most technologically advanced surface platforms being constructed for Pakistan Navy. The ships will be fitted with latest Command & Control Systems including modern weapons and sensors. The contract for construction of 04 MILGEM class ships for Pakistan was signed between Ministry of Defence Production, Pakistan and M/s ASFAT (Turkish Firm) in 2018. Under the project, two ships are under construction at Istanbul Naval Shipyard, while the other two are being constructed at KS&EW, Karachi. While addressing on the occasion, Honourable Prime Minister of Pakistan admired the collaboration of Ministry of Defence Production, Ministry of National Defence of Turkiye, M/s ASFAT, KS&EW and Pakistan Navy for synergized efforts to make the project a success and congratulated them on successful launch of the ship. He added that relationship between Pakistan and Turkiye is unique because of deep rooted historical ties between the two brotherly countries and such defence cooperation shall continue in future as well. He strongly condemned the recent incidents of terrorism in Pakistan and appreciated the people of Pakistan for their all out support during the earthquake in Turkiye. Chief of the Naval Staff Admiral Muhammad Amjad Khan Niazi during his speech highlighted that these ships will significantly enhance Pakistan Navy's combat potential and will augment peace and security in the region. The Admiral emphasized that PN has kept the policy of indigenization at the forefront and hence it is very satisfying to see the state of the art warship being built in the country. Earlier, MD KS&EW Rear Admiral Salman Ilyas in his welcome address highlighted that Karachi Shipyard is fully cognizant and completely aligned with the goals set forth by the Government of Pakistan for self-reliance in defence shipbuilding industry. The ceremony was attended by senior government officials from Pakistan and Turkiye including officers and key representatives of Pakistan Navy, M/s ASFAT and KS&EW.



Bahrain and UK Sign Digital Economy Trade Partnership



July 04, RIYADH: Bahrain's economic ties with the UK have been further strengthened after the countries signed a digital economy partnership just a day after they struck a separate £1 billion (\$1.27 billion) investment deal. The new partnership will help ensure trade between the UK and Bahrain continues to be modernized and streamlined in sectors including fintech, cyber and space. The Memorandum of Understanding, signed by the UK's Business Secretary Kemi Badenoch and Bahrain's Minister of Finance and National Economy Shaikh Salman bin Khalifa Al Khalifa, came after a Strategic Investment and Collaboration Partnership was inked to support the diversification of the Middle Eastern country's economy, particularly in clean technology, business services and manufacturing. Reflecting on the MoU, UK Minister for Investment Lord Dominic Johnson said: "Today's agreement is the culmination of a flourishing relationship between the UK and Bahrain, strengthened by our many existing partnerships and synergies across logistics, technology, manufacturing, and more."

"With the next round of talks expected shortly, a trade deal with the GCC (Gulf Cooperation Council) will bring even greater trade and investment opportunities between our countries, helping to grow our economies and create high-skilled jobs in the sectors of the future." Trade between the UK and Bahrain has nearly doubled year-on-year to a record high of £3.1 billion in 2022, an increase of 93.5 percent or £1.5 billion in current prices from the previous year.

Bahrain was the UK's 60th largest trading partner in 2022, accounting for 0.2 percent of total UK trade. UK Prime Minister Rishi Sunak met with the Crown Prince of

Bahrain Salman bin Hamad to sign off the investment deal on Monday, with the money coming from the Bahraini sovereign wealth fund Mumtalakat, Investcorp, GFH Financial Group, and Osool Asset Management. (Credits: Arab News)

First Commercial Container Ship Call by Pacific International Lines



July 22, On 17th July 2023, Hutchison Ports Jazan and the traders in the Saudi Arabia southern region welcomed the first commercial container vessel MV. Kota Rahmat at new container terminal of JCPDI Port, Jazan, Saudi Arabia, as part of a special arrangement between Pacific International Lines (PIL), owner of Kota Rahmat, and Hutchison Ports Jazan. Kota Rahmat serves PIL's Intra Red Sea Feeder service, which connects ports in the Red Sea region including Jeddah Port, Port Sudan, Djibouti Port, Hodeidah Port and Aden Port in Yemen. With the patronage of Royal Commission Jazan and JCPDI Port Authority, this collaboration between PIL and Hutchison Ports Jazan for the testing of the nGen container terminal operating systems and its integration with the customs systems, shows the support and confidence of global shipping lines in the operation of the new container terminal located in the deep-sea multipurpose Port of JCPDI, Jazan. This also reflects the good market potential of Jazan City for primary and downstream industries, as well as the newly launched Jazan Special Economic Zone (SEZ), including the hinterland market of Jazan, Abha, Khamis Mushait, and Najran, among others.

The JCPDI Port is located at the crossroads of one of the busiest East-West trade lanes and the rapidly growing North-South trade lanes. It is also strategically situated along China's Belt and Road Initiative and is the Kingdom's closest port to East Asia. The port is considered a major gateway to the Kingdom's southern



region, which has an estimated population of 4.5 million people. The terminals are expected to support the economic growth of the entire region as well as to serve Eastern and Southern Africa.

Headquartered in Singapore, PIL is ranked 12th among the world's top container shipping lines and is also the largest home-grown carrier in Southeast Asia. From a modest ship-owner, PIL has developed into a global carrier with a focus on China, Asia, Africa, Middle East, Latin America and Oceania. PIL serves customers at over 500 locations in more than 90 countries worldwide with a fleet of around 100 container vessels. **(Credits: The Maritime Executive)**

Jebel Ali Port, Free Zone Acts as Trade Catalyst in Boosting UAE-India Non-Oil Trade



July 22, UAE-based logistics giant DP World's Jebel Ali port and free zone (Jafza) is playing a significant role in boosting the volume of non-oil trade between the UAE and India and creating new business opportunities for Indian companies through access to a seamless and efficient logistics solution.

Last month, the UAE Ministry of Economy confirmed that bilateral non-oil trade volume reached \$50.5 billion in the first 12 months since inking the Comprehensive Economic Partnership (CEPA), with the two nations on track to meet the \$100 billion non-petroleum trade target by 2030. Economic partnerships such as CEPA, along with initiatives like DP World's India-UAE Trade Bridge, have contributed to the significant increase in Indian companies' confidence in expanding their reach to global markets through Jebel Ali, say experts.

Access to DP World's global portfolio for end-to-end logistics and supply chain solutions as well as the unparalleled multimodal connectivity have only enhanced the attractiveness of Jafza to Indian businesses,



particularly those in key sectors like food and beverages, manufacturing, and healthcare. **(Credits: the Gulf today)**

To De-Risk its Trade Ties with China, Germany Turns to Taiwan



July 30, On 13 July, Germany released its China strategy white paper. The 64-page document highlighted the European power's acceptance of a "systemic rivalry" with the People's Republic of China and outlined its recalibrated strategy to "de-risk" from its economic dependence on the latter while keeping cooperative relations on trade and solving global challenges such as the climate crisis.

The document also stated Berlin's intentions to foster closer relations with Taiwan amid the 70-year-long sovereignty issue between Beijing and Taipei. Germany's decision to reduce its economic dependency on Beijing and inch closer to Taiwan traces an emerging trend in European international relations – distrust of China's economic apparatus is translating into diplomatic opportunities for Taipei.

Albeit a little late and relatively softer than the positions taken by other Central and Eastern European states such as Lithuania, Germany's pronouncement is a considerable development. **(Credits: The Maritime Executive)**



Los Angeles and Nagoya Ports to Set-Up Green Shipping Corridor



July 05, The MoU will involve exchange of knowledge and practices on issues of operational efficiencies, including port community systems and digital supply chain information sharing, zero-emission vehicle and equipment testing, and a new Green Shipping Corridor between the two ports. The new three-year agreement builds upon the 2020 MoU.

These include the Port Optimiser that has been in use at the Port of Los Angeles since 2017, and has helped revolutionise the port's ability to plan, forecast and track cargo on a real-time basis.

The partners emphasized that central to sustainability efforts in the agreement will be the establishment of a new green shipping corridor in the coming years, guided by a port decarbonization plan. This endeavour will focus on the reduction of greenhouse gas emissions from cargo movement between Nagoya and Los Angeles and encourage the use and promotion of low and zero-carbon ships and fuels.

“This agreement paves the way to advance environmental sustainability and operational efficiencies at both of our ports,” said Yuji Kamata, Executive Vice President of the Nagoya Port Authority. “We look forward to further cooperation with the Port of Los Angeles so that both ports can further prosper as we move toward a new era of achieving carbon neutrality.”

Co-operation between Los Angeles and Nagoya dates to 1959, when the two cities established a Sister City Affiliation. The ports also signed a MoU in 2020 to work on sustainability and similar strategies. **(Credit: Seatrade-Maritime)**

Canadian Port Worker Strike Impacts Cargo Worth Billions of Dollars



July 11, The BC Maritime Employers Association (BCMEA) said the strike action by the International Longshore and Warehouse (ILWU Canada) now entering had potentially disrupted C\$7.5 billion worth in cargo over a 10-day period. Canadian Manufacturers and Exporters (CME) estimated previously that goods worth C\$500 million a day were being disrupted accounting for some 16% of the country's total goods.

The two sides have returned to the negotiating table but the war of words between the BCMEA and ILWU Canada has continued.

Canadian dockworkers are being backed by the ILWU south of the border and as Seatrade Maritime News reported on Monday US dockworkers say they will not handle ships diverted from Vancouver and Port Rupert to Seattle or other US West Coast ports.

“ILWU Canada leadership have even banded together with US West Coast port workers who say they will refuse to work containerships that were rerouted from Port of Vancouver to Port of Seattle – further damaging the reliability and competitiveness of West Coast ports up and down the coast,” BCMEA said on Monday.

The ILWU Canada continued to accuse employers of greed with shipping lines making huge profits during in the pandemic as container freight rates soared to record levels. All six of the world's largest shipping lines are members of the BCMEA. “The federal government would not intervene to impose contract terms on the shipping companies, protecting Canadians from cost and disruption, and it's sheer hypocrisy to now argue that government should force longshore workers back to work,” said ILWU Canada President Rob Ashton. **(Credit: Seatrade-Maritime)**



Port of Rotterdam Authority is Pleased with Significant Tightening of IMO Ambitions



July 14, The Port of Rotterdam Authority welcomes the ambition of the International Maritime Organisation (IMO) to be climate-neutral by 2050. The Port of Rotterdam Authority views the new agreements set out by the 175 IMO Member States as an important foundation for climate-proofing the shipping sector.

The Port of Rotterdam Authority is hereby responding to the amendment of the ‘Greenhouse Gas (GHG) strategy on reduction of GHG emissions from ships’, which the IMO announced on Friday 7 July. This concerns a tightening of the originally agreed strategy from 2018.

“Considering the diverse viewpoints of flag states in the IMO, the result obtained is quite an achievement. It is important that everyone now has the same perspective on an international scale. We also applaud the ambition agreed specifically regarding an increase in the use of sustainable energy in shipping,” says Eric van der Schans, Director of Environmental Management at the Port of Rotterdam Authority.

Energytransition

The Port of Rotterdam Authority is actively supporting and accelerating the energy transition in maritime shipping in many ways. For example, the Port of Rotterdam Authority has been promoting the use of alternative shipping fuel as a replacement for fuel oil for the past 15 years. This has led, among other things, to Rotterdam being one of the main bunkering ports for biofuels, and to methanol still being bunkered this year on a structural basis.

What’s more, Rotterdam is also hard at work on shore-based power for maritime shipping. Together with the International Association of Ports and Harbors – representing the interests of 200 sea ports – the European

Sea Ports Organisation (ESPO) and smaller alliances such as the World Ports Climate Action Program, the Port of Rotterdam Authority is working on improving regulations and knowledge at an international level to promote the energy transition in maritime shipping. Source: Port of Rotterdam Authority (Credit: Hellenic Shipping News)

Initiative launched to Roll Out Shore Power Across Japanese Ports



July 18, A Japanese consortium has been formed with the aim of promoting the widespread use of standardised shore-to-ship charging stations.

The group, provisionally named the ‘Promotion Council for Zero Emission Chargers for Ships’ will, in the first phase, look to set up prototype zero emission chargers for ships in Hanshin Port and Keihin Port by 2025. This is expected to then expand to ports, fishing ports, and marinas nationwide and overseas.

The council includes e5 Lab, a joint venture set up by Asahi Tanker with Exeno Yamamizu, MOL and Mitsubishi, e-Mobility Power, CHAdeMO Association, The Japan Ship Technology Research Association, Mitsubishi Shipbuilding and Development Bank of Japan.

Shore-to-ship power supply, which involves supplying electricity from land to ships, is attracting attention as a concrete measure to reduce CO₂ emissions. Approximately 40% of CO₂ emissions in ports come from diesel generators on docked ships, which also impact the surrounding environment by emitting noise, vibration, NO_x, and SO_x.

The members said the initiative should lead to improved user convenience, an increase in the number of ships using the service, the independence of the ship power supply business, and the further development of chargers.



“Ultimately, this will realise zero emissions from ships in port areas, the spread of EV ships, the expansion of renewable energy use, and improvements in global and local environmental issues,” the council said in a release. The City of Kobe, Port and Harbor Bureau and City of Yokohama, Port and Harbor Bureau are participating in the council as observers. **(Credit: Splash247)**

Foreign Port Service Providers Put More Weight on Chinese Market



July 18, The 7th Maritime Silk Road Port International Cooperation Forum held in Ningbo, a pivotal transportation hub in East China's Zhejiang Province. Foreign port service providers are increasing their emphasis on collaboration with their counterparts in China, which remains a central focus of their global strategy, despite intensifying attempts by the US-led West to "decouple" or "de-risk" from China.

Such sentiments advocating further cooperation instead of competition were expressed at the 7th Maritime Silk Road Port International Cooperation Forum in Ningbo, a transportation hub in East China's Zhejiang Province.

The annual event, jointly organized by the Zhejiang Provincial Seaport Investment & Operation Group Co and Ningbo Zhoushan Port Group Co, attracted more than 400 representatives in the shipping and port sectors from more than 40 countries and regions.

It was the fifth time that German Container Terminal Wilhelmshaven JadeWeserPort-Marketing participated in the event, aiming to stay in touch with its Chinese partners and make new contacts.

Agreements were signed for cooperation between the German port operator and Ningbo Zhoushan Port Group, which they believe will be mutually beneficial. **(Credit: Global Times)**

UAE's Overarching Role in African Ports Development



July 23, Since 2013, China has bankrolled an infrastructure boom in Africa under the BRI (Belt and Road Initiative) banner. However, the economic contraction occasioned by the Covid-19 pandemic has led China to restructure the BRI, cutting funding for most of its projects in Africa.

But there appears to be a new benevolent investor taking China's cue. During the past few years, United Arab Emirates (UAE) has expanded its investment footprint in Africa thanks to major infrastructural projects, especially in the ports sector.

In 2021, UAE celebrated the 50th anniversary of its founding. This came with the launch of the Principles of the 50 document, which plots UAE's development trajectory for the next 50 years. One key focus area is a renewed foreign policy that puts Emirate's economy first. Indeed, this inspiration could be traced in the mega-deals that Emirati companies are striking in Africa. Thanks to billions of dollars' worth of port projects, UAE is now the fourth largest investor in Africa after China, Europe and the U.S.

The Dubai-based DP World and Abu-Dhabi's AD Ports, both owned by Emirati royal families, have greatly expanded their influence in African ports in the past decade. For instance, Africa represented 10 percent of DP World's revenue as of 2021, through major port operations in seven African economies at the time.

This share has definitely gone up after DP World acquired the South Africa based Imperial Logistics. As one of the leading transport companies in Africa offering logistical support across 26 African and European countries, the Imperial acquisition cemented DP World's position as a "Gateway to Africa."**(Credit: Maritime-Executive)**



BASS Updates Accounting Software



July 5, Maritime software firm BASS has released an updated version of its accounting software module, with BASSnet Financials 3.2 adding UI improvements and additional functionality for workflow management.

The software includes newly built-in widgets, shortcuts, system-wide document attachment, direct links, and drilldown to related transaction details, with one-click actionable icons.

Multi-company entry handling features have been extended for recurring entries, period control updates and period closing run, while new customisable standard financial printout templates have also been added.

“BASSnet Financials 3.2 is our latest user friendly, intuitive version that comes with rich accounting features and powerful transactional capabilities,” said Per Steinar Upsaker, CEO and Managing Director at BASS Software. “We’ve focused on bringing quick access to essential data at the click of a button. Direct entry drilldown is now available, so users gain direct access to related entries. Newly introduced features also increase efficiency, including for convenient multi-company processing.”

Users can create personalised shortcuts to favourite screens, filtered queries, and reports can be launched from the new shortcuts menu.

All steps of the payment process (from payment plan, export, import, to confirmation) have been expanded to facilitate payment monitoring, tracking and review, and a new payment import adapter has been added to support two-way payment data export and import with banks.

(Credit: Smart Maritime Network)

Maritime Cyber Attack Database launched

July 16, Researchers at NHL Stenden University of Applied Sciences in the Netherlands have launched the



Maritime Cyber Attack Database (MCAD), a database of incidents involving the worldwide maritime sector.

Created by a team led by Dr Stephen McCombie, Professor of Maritime IT Security, the database contains over 160 incidents, including location spoofing of NATO ships visiting Ukraine in the Black Sea in 2021.

“The simulated attack in Ukraine was all about provoking a reaction and so-called ‘deploying disruptive power’,” said Dr McCombie.

“It appeared as if the British and Dutch warships were near the coast of Russian-occupied Crimea entering Russia’s main naval base, but it turned out to be a virtual trip that never took place.”

“The scope of what is possible today is surprising, so we need to educate governments and companies about these kind of cyber-attacks and help them understand not only how to react to them, but how to be prepared for them.”

Drawing from open source information, the NHL Stenden’s Maritime IT Security research group collected information on over 160 cyber incidents in the maritime industry for the MCAD. The database not only covers incidents impacting vessels, but also ports and other maritime facilities worldwide.

Now available publicly online, the research group says that it expects the database will help improve cyber security awareness in the sector and provide data for further research in this critical area.

Other incidents in the database include an insider attack by a systems administrator on a US nuclear aircraft carrier at sea in 2014 and a 2019 ransomware attack on a large container ship that prevented it from entering New York harbour.

One of the planned uses of the database is to develop maritime cyber incident simulations that are realistic and relevant so that companies, organisation, ports and



harbours can prepare for attacks. The research group will also use MCAD to produce reports and research papers showing trends and the results of detailed analysis on subsets of the data.

“The incident database is not a one-off and the collection will be regularly updated and augmented. While we searched manually for the initial research, we are now developing AI to help automate the identification of new incidents from open sources and identify further details on already known incidents,” added Dr McCombie. (Credit: Smart Maritime Network)

YAKAMOS 2020 Hull Mounted Sonar



July 23, YAKAMOS 2020 Hull Mounted Sonar System, with its improved technology, is a new generation medium frequency, surface ship Anti-Submarine Warfare (ASW) and obstacle avoidance sonar, which is designed for the surveillance of the underwater environment to automatically detect and track underwater targets such as submarines, submersibles, torpedoes and mine-like objects.

YAKAMOS 2020 is easily adaptable to developing technology and changing acoustic environmental conditions with a more compact, more capable, modular, scalable innovative hardware and configurable software architecture compared to traditional sonar systems in the market.

The system, which is able to work with high performance for longer periods by increased efficiency of its improved power modules and system architecture, can also detect potential threats from longer distances by updating the sensor (transducer) architecture.

The system is being used in MILGEM corvettes since 2011 and was selected as the sonar system of Pakistan Navy Corvette Program in 2019. In addition to PN MILGEM project, YAKAMOS 2020 sonar system was contracted within the scope of different projects to be

delivered to another Navy and for another platform. As of today, YAKAMOS 2020 has international references other than Turkish Navy and diversifying the onboard platforms different from MILGEM Ship. The user experiences of new Navies, platforms and operational environmental conditions are strengthening the capabilities of YAKAMOS 2020 Sonar and increasing the competitiveness of the system in international markets. (Credits: Meteksan Savunma)

CCS Issues AiP to First Methanol Bunkering Vessel in China



August 3, According to CCS, The methanol bunkering ship certificated is a competitive brand of new energy ship independently developed by Seahead. With a maximum capacity of 7500 t, bunkering fuel oil and methanol, fitted with hoses, ERS, QC/DC and ESD etc., the vessel can be used for the transfer of methanol fuel.

Wuhan Institute, with the technical advantages in alternative fuels, established the working group on methanol technology application and ship type service to carry out research and assessment on overall design, ship arrangement, bunkering system, cargo containment system and safety protection etc., providing full technical services in ship safety and system design optimization etc.

In addition, Wuhan Institute and the designer jointly carried out the application verification of the Rules for Methanol Bunkering Ships (draft). As CCS claims, the AIP certificate lays a solid foundation for the design, assessment and verification of methanol bunkering ships in China, which will help the industry to meet the growing demand for marine methanol fuel bunkering.

Methanol bunkering is already a reality and will probably gain more popularity as the shipping industry strives to reduce its emissions. For instance, Maersk and Hong Lam Marine have successfully conducted the world's first ship-to-containership methanol bunkering operation in Singapore in late July. (Credits: Safety4sea)



EPS and China Power Sign New Fuels Agreement



July 24, Singapore-based Eastern Pacific Shipping and China Power International Development Limited have signed a Framework Cooperation Agreement (FCA) to collaborate on the production of green energy and renewable fuel solutions. The companies will cooperate to advance the development and adoption of energy solutions for the maritime industry, including green ammonia and green methanol. Representing EPS at the signing was Commercial Director Tay Gak Yong, who stated: "By leveraging our combined expertise, we aim to unlock new opportunities, drive innovation, and deliver tangible solutions that address the pressing global challenges of maritime decarbonization and sustainability. EPS looks forward to working with China Power to develop mutually synergistic solutions that will ultimately benefit the entire maritime industry." EPS operates a fleet of 21 million dwt across three core segments of container ship, dry bulk and tanker vessels. (Credits: MarineLink)



POLARIS JOURNAL OF MARITIME RESEARCH (P-JMR) HEC-Y CATEGORY JOURNAL CALL FOR PAPERS

ISSN: 2519-1772 E-ISSN: 2710_5091

Polaris Journal of Maritime Research (P-JMR) welcome academic contribution from researchers and practitioners for possible inclusion in an upcoming issue of the Journal which will be published in year 2023.

ABOUT THE JOURNAL

Polaris Journal of Maritime Research (P-JMR) is internationally blind peer-reviewed, ISSN registered & flagship research publication of National Institute of Maritime Affairs (NIMA), Pakistan. The Journal publishes full length research papers, short opinion articles/ commentaries, and book reviews on maritime subjects.

SCOPE OF THE JOURNAL

- ★ *Geo-Politics and Strategic Maritime Environment*
- ★ *Maritime Security*
- ★ *Maritime Economy*
- ★ *Ports and Logistics*
- ★ *Environmental Issues and Ocean Governance*
- ★ *Maritime Laws & Policies*
- ★ *Maritime Technology*
- ★ *Maritime Training and Education*
- ★ *Sustainable Utilization of Marine Resources*

REVIEW PROCESS

The time length of the review process may vary among different papers and many factors, depending upon the type of the manuscript/ study submitted. All manuscripts should be proof-read as per guidelines. The submissions will be checked on Turnitin for plagiarism as per HEC criteria. There is no Fee for publishing in PJMR.

For More Info:

Contact Editor : +92(21)99240002-Ext 255 Email address : pjmr@bahria.edu.pk
Direct: 021-48503752

PJMR Website : <https://bahria.edu.pk/polaris/> Author Guidelines : <https://bahria.edu.pk/polaris/instruction-for-authors/>



MARINE LIFE MAY BE HEADED TO HIGHER LATITUDES

By Mackenzie White



In Earth's tropical oceans, diverse plankton populations drift through open waters, forming the foundation of marine food chains. This diversity generally decreases toward the colder waters of the ice-capped poles. However, as climate change continues to reshape the world's oceans and ice sheets, these vital organisms may head for higher latitudes, with larger marine life following in their wake, according to new research.

In a study published in *Nature*, scientists used the fossils of single-celled, shell-building plankton called foraminifera to explore how marine life has reshuffled in response to climate shifts. As Earth cooled during the past 8 million years, ice sheets formed at the poles, pushing planktonic foraminifera about 30° latitude toward the equator and establishing today's diverse tropical groups, the fossil record shows.

Over the past 150 years, anthropogenic climate change has caused geologically rapid warming. And as global temperatures approach levels similar to those from 8 million years ago, planktonic foraminifera may evacuate hotter regions in the tropics and move poleward. The effects could cascade through both marine and terrestrial ecosystems, breaking down food chains, said Adam Woodhouse, a coauthor of the study and a micropaleontologist at the University of Texas Institute for Geophysics. The scenario is "totally gloom and doom," he said.

Plankton Inform the Past, Present, and Future

Although they are only about the size of a grain of sand, planktonic foraminifera contain valuable scientific data. These marine creatures live in the upper part of the water column, producing shells typically made of calcium carbonate. When they die, their tiny shells sink to the ocean floor, accumulating over time and



ultimately becoming microfossils that record past environments and climates.



***Dentoglobigerina altispira* is a type of planktonic foraminifera, Credit: Adam Woodhouse**

To track the history of planktonic shifts across the world’s oceans, Woodhouse and his colleagues used a newly developed data set called Triton, which includes more than half a million records of fossil planktonic foraminifera the largest data set ever created for a single fossil group and one of the most complete fossil records of any organism.

Planktonic foraminifera are particularly useful for reconstructing past environments because their shells preserve a record of their life history, physical traits, and species-specific ecological niches. These details have allowed scientists to develop an exceptionally refined understanding of how planktonic foraminifera have evolved using imaging methods like micro-CT (computerized tomography) scans, Woodhouse said.

Employing the extensive Triton record collection of foraminifera fossils, the researchers looked at how global marine plankton communities reorganized over the past 8 million years as Earth became a world of ice ages, helping to contextualize the potential impacts of modern climate change on marine life.

To investigate these biogeographic shifts, the researchers explored patterns across “ecogroups” and “morphogroups.” Ecogroups are based on the organisms’ ecological niches, such as their habitats, and morphogroups are based on their physical characteristics. The study revealed large-scale changes in the biodiversity patterns of planktonic foraminifera that couple with the development of polar ice sheets as the climate cooled.

Understanding the past and present movement patterns of planktonic foraminifera is important because in the modern ocean, their distribution correlates with that of many larger organisms like tuna, billfish, squid, and



krill that people rely upon for sustenance and livelihood, Woodhouse explained.

The response of the foraminifera to modern climate change may therefore be useful for predicting the response of other organisms throughout various food webs.

Past is Prologue

Though the present rate of climate change far exceeds those of the geologic past, the fossil record is still a useful analogue to understand the present when it is scaled by relative rates of change, said Nussaibah Raja, a doctoral student in paleobiology at the University of Erlangen-Nuremberg who was not involved with the study.

Both past and present climatic circumstances involve transitioning from a normal to an extreme time, from a cool period to a warming one. By examining what happened in the past under these comparable conditions, scientists can generally anticipate similar patterns of movement and extinction, she said.

Predicting what will happen in the future from the fossil record is an extremely complex challenge, Woodhouse said. “The issue with comparing modern day to 8 million years ago is humans have changed everything,” he said. Human activity has affected the top and bottom of the marine food chain, marking a departure from how marine life has operated over the past 540 million years and how extinctions have occurred, he explained.

Biodiversity in a Warming Future

Though the ability to peer into the future is limited, the study’s observed range shifts among marine planktonic microorganisms in the recent and geological past suggest a significant poleward expansion of these communities in the future, even under the most conservative future global warming scenarios.

Scientists are already seeing evidence that plankton are moving in response to anthropogenic climate change over the past 150 years, Raja said. “I don’t think people realize how much we depend on the oceans and how much they are currently changing.”

As climate change continues to affect marine life, Woodhouse asserts the urgency of continued scientific investigations and the protection of the ocean. He said he is now preparing to take the next step in his research: discovering whether other organisms will soon follow the path of the plankton.

About the Author: Mackenzie White Planetary Science Ph.D. Candidate and Science Writer. Passionate about merging science and storytelling to engage and inspire.

(Source: Eos, AGU)



BALANCING ACT: SUSTAINABLE WATER MANAGEMENT FOR PAKISTAN'S INDUS DELTA

By Ghazi Salahuddin



Pakistan faces a formidable challenge in the form of climate change, which is already wreaking havoc on the country through extreme weather events, melting glaciers, and rising sea levels. Among the various climate change-related issues facing Pakistan, the decline of freshwater flows in the Indus Delta is particularly complex and multi-faceted. The construction of dams and barrages has disrupted the freshwater flow of the delta, leading to economic and environmental consequences that need to be addressed through a well-designed strategy.

One possible solution to this problem is sustainable water management. By allocating water resources to meet the needs of the government and local communities, Pakistan could maintain a healthy flow of freshwater in the delta while meeting the government's hydropower and irrigation needs. This could be achieved through a system that prioritizes the ecological health and livelihoods of local communities. A holistic approach to water resource management that involves all stakeholders, including local communities and environmental groups, can also be effective. This approach could promote transparency and ensure that the needs of all parties are considered in decision-making. It could involve the use of water-saving technologies in agriculture and industry and the restoration of degraded ecosystems that serve as natural water reservoirs and filters.

It could also establish a forum for dialogue and collaboration among stakeholders to address the problem of reduced freshwater runoff in the Delta. This forum could provide a platform for all stakeholders, including local communities, environmental groups, and government, to share their perspectives and work together to find solutions that meet the needs of all stakeholders. By promoting transparency and inclusivity, the establishment of such a forum could help build trust among stakeholders and foster a sense of ownership for the sustainable management of water resources in the Indus Delta.



To make these solutions effective, modern technologies such as satellite imagery and remote sensing could be used to better monitor and manage water resources. These technologies could help identify areas of water stress and enable the government to take targeted actions to address these issues.

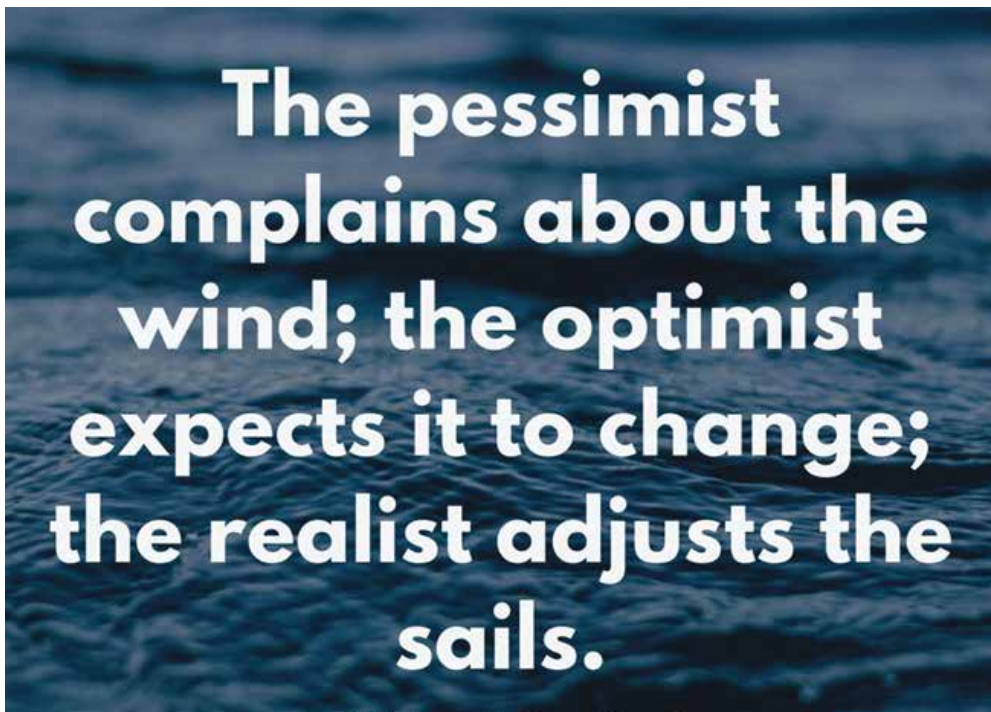
In summary, the problem of reduced freshwater supplies in the Indus Delta is complex and requires a balanced approach that considers the needs of all stakeholders. Implementing sustainable water management practices, establishing a forum for dialog and collaboration among stakeholders, and using modern technologies could be effective solutions to address this problem without negative side effects. By working together and promoting transparency and inclusion, stakeholders can develop policies and practices that meet the needs of all stakeholders and ensure sustainable management of water resources in the region. The stakes are high and Pakistan must act decisively to combat climate change and its devastating effects.

پاڪستان جي عوام ۾ سگهيون ۽ ايڪائي جي شعور ٻڌائيندا، ۽ ان کي عوام جي محنت جي پڻ سگهن ۽ سمجهن جي "ضرورت آهي، جيڪو انهن کي جي انڊس ڊيلٽا ۾ پيش آھيندا جي گھٽ پار مٿي کي پياري جيڇ ٿيندا آھي"

"The people of Pakistan need to come together with a sense of unity and awareness and understand the hardships faced by the communities living in the reduced freshwater flows of the Indus Delta."

About the Author:

After 30 years of naval service, he joined WWF-Pakistan and currently heading the marine program as a regional head of Sind and Balochistan.





ENHANCING TRACEABILITY AND TRANSPARENCY IN FISHERIES TO COMBAT ILLEGAL, UNREPORTED, AND UNREGULATED FISHING PRACTICES IN PAKISTAN

By Shoaib Abdul Razzaque



The global recognition of traceability and transparency in fisheries policy has surged due to the growing understanding of the extensive impacts of illegal fishing practices. To combat this issue, the Food and Agriculture Organization (FAO) has transformed the "Port State Measures Agreement" into a binding treaty supported by over 25 countries, intending to strengthen port inspections to deter illegal fishing activities.

Developing countries, particularly within their exclusive economic zones, face significant challenges in managing their waters due to limited resources, inadequate infrastructure, and insufficient surveillance. Pakistan specifically grapples with issues related to illegal fishing, such as the operation of dual-licensed fishing vessels engaged in the unlawful capture, trade, and transshipment of various fish species. Oversized fishing nets in areas beyond national jurisdiction further exacerbate the problem. Pakistani fishing fleets operating hundreds of nautical miles from the coast also contribute to the issue, causing the death of thousands of dolphins annually.

The primary challenge in combating illegal fishing practices lies in government departments' limited knowledge and technical capacity. Inadequate information sharing among states and the Regional Fisheries Management Organization and a lack of technological expertise in implementing monitoring systems pose additional hurdles. Furthermore, there is a deficiency in data reporting mechanisms for small-scale fisheries.

Addressing these challenges requires a global priority program enhancing fish trade and governance. Through policy interventions and state-level measures, this program minimizes illegal fishing activities and Pakistan's involvement. Essential components of successful fisheries models include establishing a robust monitoring unit with comprehensive fishing activity data and leveraging experiences from regions like Coastal East Africa. Capacity-building initiatives, awareness programs, and the formation of regional multi-stakeholder alliances are vital in effectively tackling illegal fishing.



In Pakistan, collaborative efforts among implementing and conservation organizations can foster dialogue among relevant authorities to identify solutions. Utilizing data collected by provincial fisheries departments and leveraging Pakistan's membership in the Indian Ocean Tuna Commission offer opportunities to address gaps in strategies and policies, overcome obstacles in combating illegal fishing, and share successful experiences to enhance fisheries management practices and technologies in Pakistan, drawing lessons from regional countries like Sri Lanka.

About the Author:

Shoaib Abdul Razzaque graduated in marine sciences, he possesses experience in implementing marine fisheries and wildlife conservation projects focused on small-scale fisheries in Pakistan. Currently, coordinates regional organizations from WWF-Pakistan, such as CMS- MTF and the Arabian Sea Humpback Network from the Northern Indian Ocean.

Cover Story

Mubarak Village, a picturesque coastal settlement nestled on the fringes of a busy metropolis, stands as a living authentication to the rich cultural heritage of its people. Situated on the Arabian Sea coast, It is also considered one of Karachi's most well-known beaches. Fishing is a popular activity at Mubarak Village beach, which is fitting considering that the community is home to one of the highest concentrations of fishers in the entire nation. It is a place of history, tradition, and breathtaking natural beauty. The village was named after a revered local saint, Pir Mubarak Shah, whose tomb remains a prominent religious and spiritual site for the residents. The livelihood of Mubarak Village primarily revolves around fishing and agriculture. The village's nearness to the sea has made fishing a crucial activity for generations, paying significantly to the local economy. Fishermen cast their nets each day, following the footsteps of their ancestors, and continue to pass on age-old techniques and knowledge to younger generations.



FIRST CARGO SHIP POWERED BY 'GREEN METHANOL' HAS BEGUN MAIDEN VOYAGE

By Mr. Kamran Hashmi



The first container ship in the world is currently halfway through its inaugural voyage from South Korea to Copenhagen, Denmark utilizing only "green methanol" fuel. The ship departed the port of Ulsan, South Korea, on July 15 and is scheduled to arrive in Copenhagen in the middle of September. The Maersk company is getting ready to receive a fleet of new, huge ocean-going methanol-enabled ships starting in 2024, and the 21,500-kilometer trip from Ulsan, South Korea, to Copenhagen, will give real-world operational experience for operating the new engines and using methanol as fuel.

Methanol is considered a more environmentally friendly alternative to traditional fossil fuels because it produces fewer emissions of sulfur oxides, nitrogen oxides, and particulate matter. It can be produced from a variety of renewable sources, such as biomass, natural gas, or even carbon dioxide captured from industrial processes. This makes methanol a potential option to help the shipping industry transition toward more sustainable practices and meet IMO regulations.

The journey represents an increase in the use of methanol by the shipping industry to reduce greenhouse gas emissions, which make up around 3% of global emissions. The feeder ship, which will operate in the Baltic Sea, was constructed by Hyundai Mipo Dockyard in Ulsan, South Korea. It can hold 2,100 TEUs (twenty-foot equivalent units) of containers. It is pertinent to note that the International Maritime Organization (IMO) has established challenging goals to cut greenhouse gas emissions from shipping by 96% by 2050 compared to 2008 levels and by 46% by 2030. If this container ship's first journey turns out to be successful and profitable, it could set a good example for other shipowners and persuade them to embrace comparable green technologies. The maritime sector would become more environmentally friendly and sustainable because of this.

About the Author:

The writer is associated with the National Institute of Maritime Affairs; the views expressed are his own.



UNSUSTAINABLE FISHING PRACTICES AND THE IMPACT OF GHOST GEAR ON MARINE ENVIRONMENTS

By Summaiya Abid



Approximately 10% of marine debris consists of ghost gear, and currents, wind patterns, and monsoons influence its distribution in the Indian Ocean. Fishing practices in this region rely heavily on synthetic plastic nets, such as high-density polypropylene, polyethylene, and nylon. When these nets are abandoned intentionally or accidentally, they transform into ghost gear, posing significant hazards to marine life. Each year, millions of tons of gear are lost due to environmental factors and unintentional fishing pressure, which has now become a socio-economic concern. Entangled fish serve as bait, attracting larger predators like turtles, sharks, and dolphins, which can also become entangled in the same net, creating a detrimental cycle that adversely affects the marine ecosystem.

Fishing nets are known to harbor bacterial and fungal pathogens. An estimated 500,000 tons of fishing nets are discarded into the sea annually, providing favorable conditions for the growth of infectious pathogens that can harm marine species upon contact. Researchers have recently discovered that the chemical composition of fishing nets in Pakistan has profound implications for the marine environment, particularly for turtles' health. The non-biodegradable nature of these nets, coupled with the presence of additives and heavy metals, poses a severe threat to the oceans' well-being and inhabitants.

To mitigate these effects, it is crucial to develop effective measures to combat ghost gear. This requires evaluating the root causes of gear loss and addressing fishermen's safety, economic, and conservation challenges. Implementing proper waste management practices, promoting the development of biodegradable fishing nets, and adopting preventive strategies, such as restricting high-risk gear to specific locations or seasons, clearly labeling fishing gear for easy identification of owners, and improving end-of-life disposal and recycling methods, are necessary.

Collaboration between governmental bodies, organizations, and stakeholders is essential to protect marine life by monitoring the presence of these nets and safeguarding marine habitats. By taking proactive measures, we can work towards preserving the health of the oceans and ensuring the well-being of its diverse marine species.

About the Author:

Summaiya Abid completed her master's in marine sciences from the University of Karachi. Currently, She is working as a senior research associate in the marine program at WWF-Pakistan.



RISING MICROPLASTIC POLLUTION IN PAKISTAN: A SILENT THREAT



As a concerned citizen and supporter of environmental protection, I'm writing to draw attention to Pakistan's severe microplastic pollution problem. The spread of microplastics in the environment is a serious threat to the health of people, animals, and our ecosystem. The extensive consumption of plastic products has become a necessity of modern living over the last 10 years. Microplastics, which are increasingly pervasive in our air, water, and land due to inappropriate disposal and insufficient recycling of plastic waste, have sadly resulted from the fragmentation of plastic. These smaller than 5mm-sized microplastics are a persistent pollution in our environment because they are difficult to find and get rid of.

Microplastics have a destructive influence on marine life and terrestrial ecosystems. Microplastics are mistaken for food by marine species such as fish, birds, and marine mammals, resulting in internal damage, malnutrition, and even death. Furthermore, these harmful particles make their way into the food chain, eventually reaching humans and posing health dangers. Microplastics have been found in studies to carry toxic compounds and poisons, which may have negative impacts on human health, such as reproductive difficulties, immune system disruption, and an increased risk of certain diseases.

Therefore, I strongly urge official authorities and the government to take immediate action to prevent microplastic pollution. Implementing strict legislation, investing in waste management infrastructure, and raising public awareness are all critical measures for resolving the environmental challenge. Together, we can create a cleaner and safer environment for all.

*Yours Sincerely,
Dr. Hira Amjad
SCEE (IESE), NUST H-12 Campus Islamabad*



SUSTAINABLE APPROACHES TO MEET THE GROWING DEMAND FOR SEAFOOD WITH OVERFISHING CONCERNS.



Besides plastic pollution in the ocean, overfishing is also reported as a massive problem. We should raise concerns about overfishing. Fishing sectors in Pakistan contribute less than 1% to the country's gross domestic product. Faisal Iftikhar, Chairman of the Pakistan Fisheries Exporters Association said that, In terms of exports, the fishing industry in Pakistan was expected to be a large and expanding sector. But the growing demand for seafood is resulting in Overfishing. This practice is also known as IUU fishing, an acronym for "illegal, unreported, and unregistered fishing". IUU fishing can lead to the collapse of a fishery or seriously impair efforts to prepare depleted fish stocks, lose economic and social opportunities, both short-term and long-term, and may diminish food security.

Although the Exclusive Fishing Zone (Regulation of Fishing) Act, 1975, states the Licensing and management of fishing operations and, prohibition of IUU fishing.

According to a thorough assessment titled The Fisheries Resources Appraisal, there are currently only nine of the 14 major species groups left. Only two species groups exhibit any signs that fishing mortality is at or below the threshold necessary to achieve maximum yields. An estimated 40% of the huge shrimp fishery, which is valued at \$400 million, is likely to disappear within the next 20 years.

Even after all of these laws, overfishing keeps on enduring. Overfishing should have to be tackled by sustainable approaches to meet the growing demand for seafood. Or else, over time it will lead to a complete decline of fishes in their natural habitat. There should be a department that can revive all the laws, monitor seafood activities, and, guarantee the saving of marine ecosystems and fishing communities.

*Yours Sincerely,
Hafsa Musharraf
MS Student*

Institute of Marine Science, University of Karachi



Alpine Marine Services (Pvt) Ltd.

34, A/2, 2nd Floor, Haider House, Beach Luxury Hotel Road, Lalazar Drive, Off: M.T.Khan Road, Karachi-74000
Tel: 35611051-52
Fax: 35611081-82
Email: info@alpinemarine.com
Website: www.alpinemarine.com

Eastern Sea Transport (Pvt) Ltd.

Eastern House, 9-Timber Pond, Keamari, Karachi-75620
Tel: 32851945-56
Fax: 32851354 / 32852064
Email: info@easterngroup.cos.com
Website: www.easterngroupcos.com

Bulk Shipping & Trading (Pvt) Ltd.

Level 2, 34-A/2, Lalazar Drive, Opp: Beach Luxury Hotel, Karachi-74000
Tel: 35611051-52
Fax: 3 5643370
Email: bulkshipping@bulkshipping.com.pk
Website: www.bulkshipping.com.pk

Globelink Pakistan (Pvt) Ltd.

36-Timber Pond, Keamari, Karachi-75620
Tel: 111-298-298
Fax: 32851678/32851981
Email: general@globelinkpk.com
Website: www.globelinkpk.com

Crystal Sea Services (Pvt) Ltd.

Suite No.1010, 10th Floor ,Business Centre, Mumtaz Hassan Road, Karachi-74000
Tel: 32426912-13
Fax: 32426369
Email: crystalsea@cssgroup-pk.com
Website: cssgroup-pk.com

Haroon Brothers Services

Cargo De- stuffing/ Stuffing, Sludge Oil Collection from Vessel,
Garbage/ Waste Collection, Container/ Cargo Survey,
Contact: 03312888524 / 03213337090
Email: haroon.bro@gmail.com / jqbgd834gmail.com

Dynamic Shipping Agencies (Pvt) Ltd.

Suite No.1201-1202, 12th Floor, Emerald Tower, Plot No.G-19 Block-5, Main Clifron Road, Opposite 2 Talwar, Karachi-74000 **Tel:** 111-372-111
Fax: 35157913
Email: info@dynamicshipping.com
Website: cssgroup-pk.com

International Ports & Ships Services

Suite No.305, 3rd Floor, Dean Arcade, Clifton, Block-8, Karachi
Tel: 35863471
Fax: 35824959
Email: info@ipss.com.pk

Modern Container Terminal

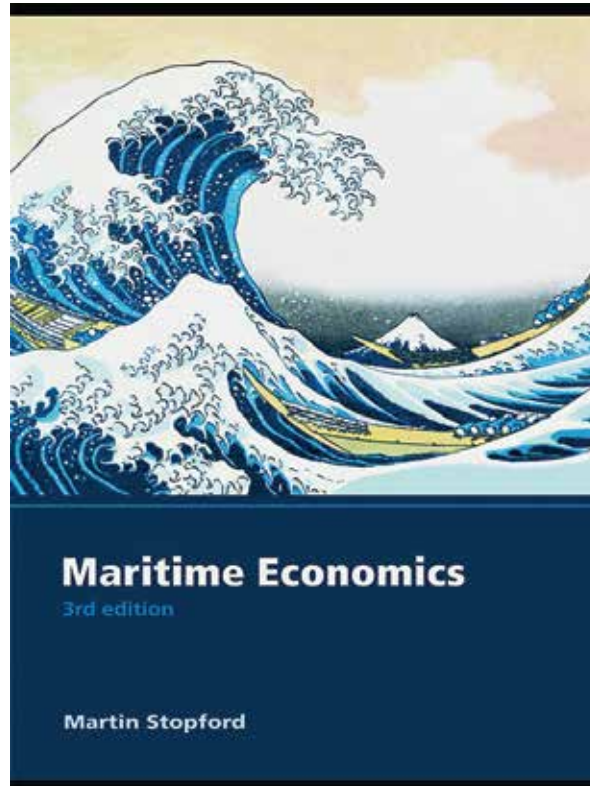
Suite # 703, 7th Floor, Business Plaza, Mumtaz Hassan Road, Off. II. Chundrigar Road, Karachi - Paksitan.
Contact: +92 21 111 672 000

MM Brothers Services

Ground Floor, Haroon Plaza, Bux Road, Keamari, Karachi.
Contact: +923212476447 / +923312888525
Fax: 0213-2860534
Email: info@mmbrother.com / mmbrother.pict@gmail.com
mmbrother.dpw@gmail.com
Website: www.mmbrother.com



Maritime Economics, Third edition by Martin Stopford



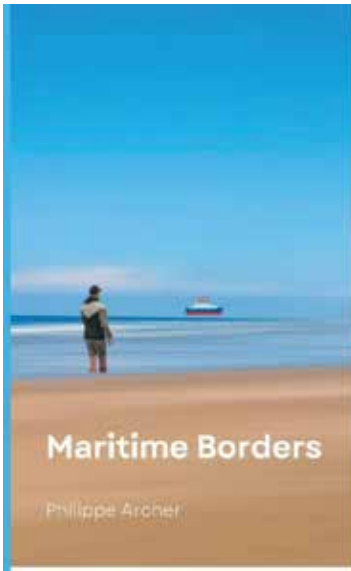
ISBN:0-203-89174-0

Maritime Economics, written by Martin Stopford, offers a comprehensive exploration of the maritime industry's economic aspects. It depicts an accurate version of the evolution of the maritime industry and its profound impact on global trade and economies that make this book a must-read for anyone remotely interested in this domain.

The book ingeniously combines historical accounts with theoretical knowledge and personal experiences, ensuring readers receive a complete overview of the subject matter. It includes compelling case studies of maritime trade, detailed insights into shipping cycles, and valuable information on legal and technical terms commonly encountered in the field.

Readers will find sections from charters and various guides, as well as multiple chapters exploring the inner workings of the shipping industry. Additionally, the book dedicates a significant portion to the critical topic of forecasting and prediction, highlighting the associated risks and challenges in this domain.

Pakistan has a significant coastline and a strategic location, understanding maritime economics can help Pakistan optimize its shipping and port operations. This book can equip Pakistani policymakers, business leaders, and academics with the knowledge needed to adapt to evolving market conditions and stay competitive in the international arena.

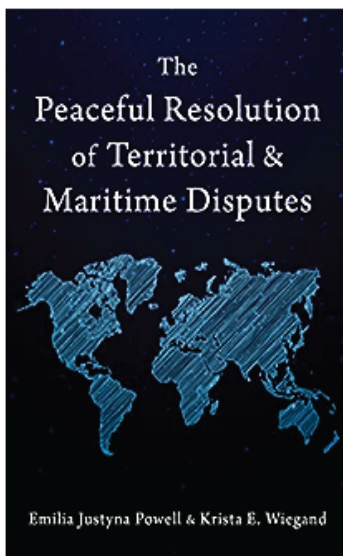


MARITIME BORDERS

ISBN-13: 979-8393873691

Book Description

A global blue economy is an economic arena that depends on the benefits and values realized from the coastal and marine environments. This book explains the "sustainable blue economy" as a marine-based economy that provides social and economic benefits for current and future generations. It restores, protects, and maintains the diversity, productivity, and resilience of marine ecosystems, and is based on clean technologies, renewable energy, and circular material flows.



THE PEACEFUL RESOLUTION OF TERRITORIAL AND MARITIME DISPUTES

ISBN-13: 9781032360713

Book Description

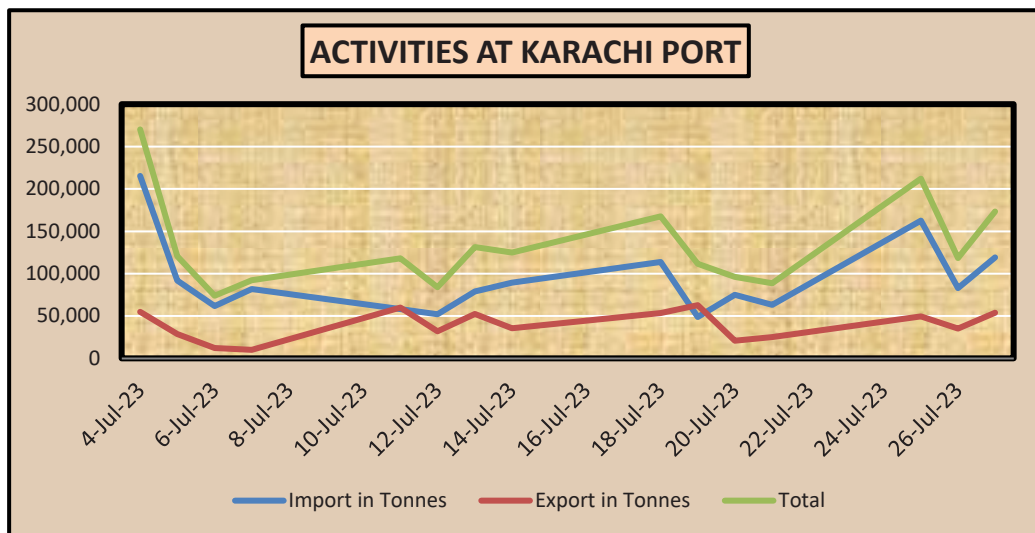
This book is about the peaceful resolution (PR) of territorial and maritime disputes and states' strategic behavior vis-à-vis methods of peaceful resolution: bilateral negotiations, good offices, inquiry, conciliation, mediation, arbitration, and adjudication. The authors argue that the high stakes associated with the settlement of territorial and maritime disputes, the diversity of PR methods employed, and the unpredictability of outcomes push states to strategize. Strategic considerations undergird states' choice of particular PR methods, and states' behavior during the resolution once a particular method such as adjudication or negotiations, has been initiated. Uncertainty about the outcome drives states to pursue "strategic selection." The process of strategic selection occurs at two interrelated stages: the initial pursuit of a particular method and venue--choice-of-venue strategic selection, and decision-making once a PR method/venue has been identified--within-venue strategic selection. The driving force behind strategizing in these two settlement stages is the hope of reducing uncertainty and of increasing the chances of winning. Importantly, as the disputants progress through the settlement process, states reconsider and refine these strategies.

For each stage of strategic selection, Powell and Wiegand identify several mechanisms that influence states' strategies, including past experiences with PR methods (winning/losing), the relationship between domestic law and international law, framing legal claims, and shaping the resolution procedures. This book embraces a multi-method approach and combines statistical analyses and in-depth qualitative interviews with states' legal counsel, judges, arbitrators, government officials, and other experts from multiple countries. The book also highlights numerous real-world instances of territorial and maritime disputes including the Philippines v. China arbitration case in the South China dispute.



ACTIVITIES AT KARACHI PORT (JULY 2023)

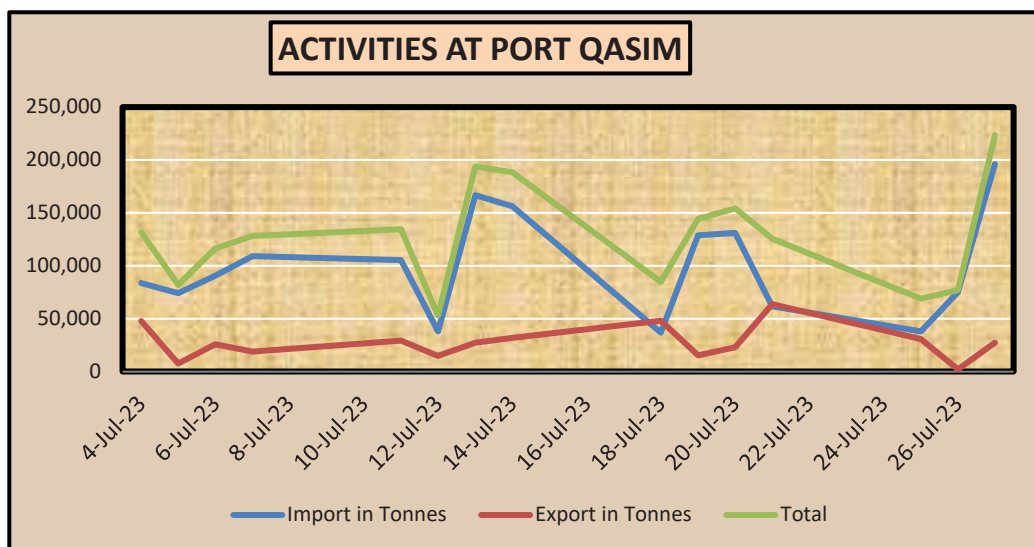
Date	Import in Tonnes	Export in Tonnes	Total
4-Jul-23	215,443	54,947	270,390
5-Jul-23	91,839	28,791	120,630
6-Jul-23	61,806	12,175	73,981
7-Jul-23	82,022	10,268	92,290
11-Jul-23	58,217	59,960	118,177
12-Jul-23	52,024	32,103	84,127
13-Jul-23	79,098	52,422	131,520
14-Jul-23	89,319	35,675	124,994
18-Jul-23	113,969	53,620	167,589
19-Jul-23	48,726	62,786	111,512
20-Jul-23	75,219	20,985	96,204
21-Jul-23	63,368	25,186	88,554
25-Jul-23	162,595	49,605	212,200
26-Jul-23	83,092	35,414	118,506
27-Jul-23	119,267	54,029	173,296
Total	1,396,004	587,966	1,983,970





ACTIVITIES AT PORT QASIM (JULY 2023)

Date	Import in Tonnes	Export in Tonnes	Total
4-Jul-23	83,783	47,838	131,621
5-Jul-23	74,142	7,752	81,894
6-Jul-23	90,604	25,840	116,444
7-Jul-23	109,048	19,023	128,071
11-Jul-23	105,283	29,325	134,608
12-Jul-23	38,091	14,943	53,034
13-Jul-23	166,643	27,200	193,843
14-Jul-23	156,222	31,977	188,199
18-Jul-23	36,874	48,035	84,909
19-Jul-23	128,819	15,593	144,412
20-Jul-23	131,100	23,110	154,210
21-Jul-23	61,846	63,750	125,596
25-Jul-23	38,130	30,856	68,986
26-Jul-23	74,861	2,278	77,139
27-Jul-23	196,194	27,200	223,394
Total	1,491,640	414,720	1,906,360



Tide Times for Port



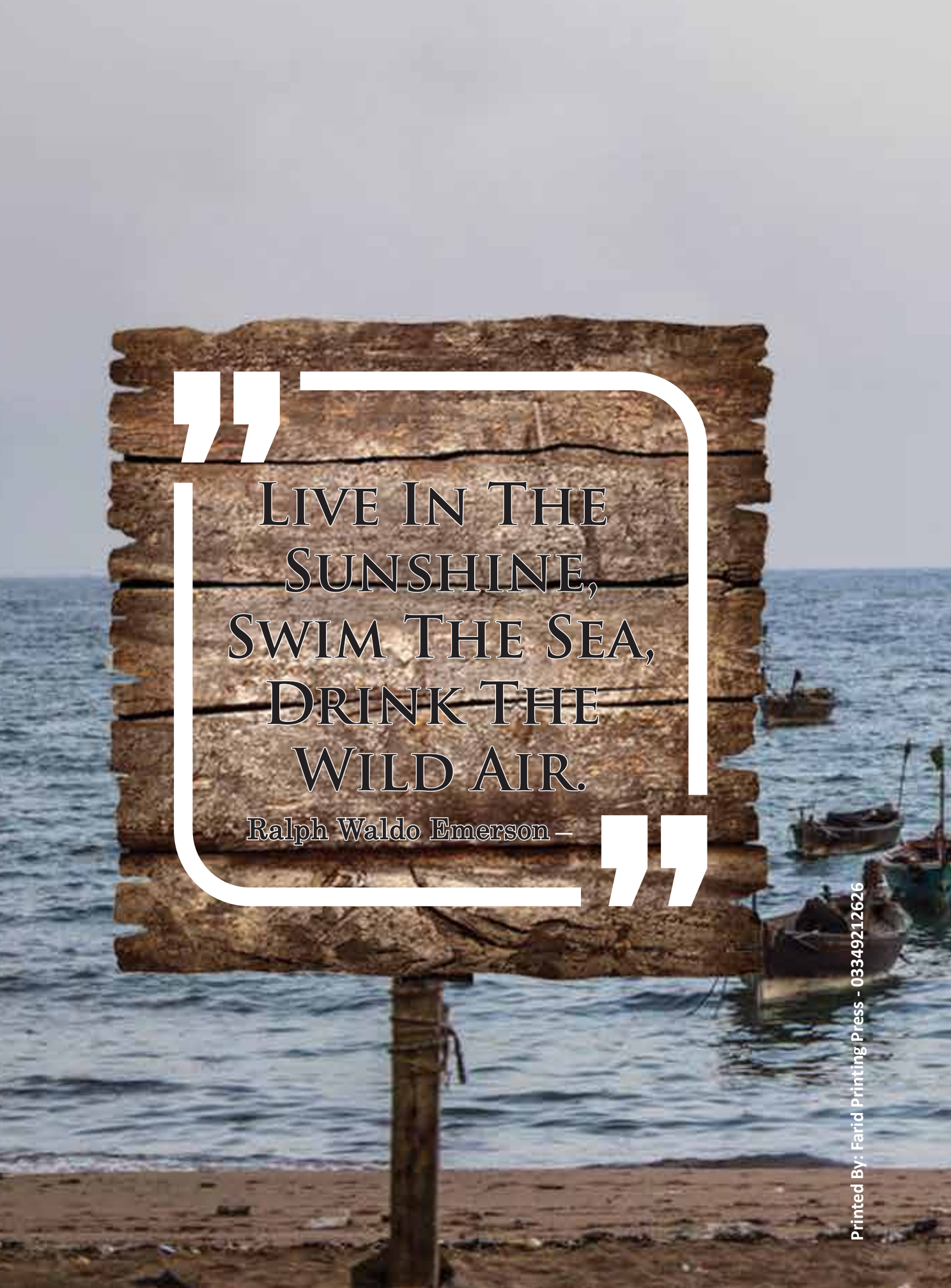
Tide Times for Karachi			
Lat: 24°48' N Long: 66°58' E			
Date	Tide	Time (PKT)	Height (m)
15 August 2023	Low Tide	0359	0.29
	High Tide	1052	2.86
	Low Tide	1645	1.09
	High Tide	2216	2.45
16 August 2023	Low Tide	0434	0.24
	High Tide	1121	2.92
	Low Tide	1718	0.97
	High Tide	2251	2.54
17 August 2023	Low Tide	0507	0.24
	High Tide	1148	2.95
	Low Tide	1448	0.88
	High Tide	2325	2.58
18 August 2023	Low Tide	0538	0.29
	High Tide	1213	2.96
	Low Tide	1815	0.80
	High Tide	2357	2.60
19 August 2023	Low Tide	0609	0.40
	High Tide	1237	2.93
	Low Tide	1843	0.74
	High Tide	0300	2.57
20 August 2023	Low Tide	0638	0.56
	High Tide	1300	2.87
	Low Tide	1911	0.69
	High Tide	0105	2.51
21 August 2023	Low Tide	0708	0.77
	High Tide	1324	2.79
	Low Tide	1940	0.65
	High Tide	0142	2.41
22 August 2023	Low Tide	0739	1.02
	High Tide	1348	2.70
	Low Tide	2012	0.63
	High Tide	0227	2.30
23 August 2023	Low Tide	0815	1.28
	High Tide	1413	2.59
	Low Tide	2054	0.63
	High Tide	0330	2.18
24 August 2023	Low Tide	0900	1.53
	High Tide	1445	2.46
	Low Tide	2153	0.64
	High Tide	0512	2.13
25 August 2023	Low Tide	1027	1.74
	High Tide	1533	2.33
	Low Tide	2314	0.59
	High Tide	0703	2.24
26 August 2023	Low Tide	1216	1.76
	High Tide	1655	2.23
	Low Tide	0032	0.45
	High Tide	0818	2.45
27 August 2023	Low Tide	1339	1.62
	High Tide	0138	2.25
	Low Tide	0138	0.25
	High Tide	0906	2.69
28 August 2023	Low Tide	1442	1.36
	High Tide	2006	2.41
	Low Tide	0236	0.05
	High Tide	0945	2.91
29 August 2023	Low Tide	1532	1.05
	High Tide	2113	2.64
	Low Tide	0329	-0.09
	High Tide	1021	3.11
30 August 2023	Low Tide	1616	0.73
	High Tide	2207	2.83
	Low Tide	0417	-0.14
	High Tide	1056	3.26
30 August 2023	Low Tide	1657	0.44
	High Tide	2255	3.00

Tide Times for Port Qasim			
Lat: 24°48' N Long: 66°58' E			
Date	Tide	Time (PKT)	Height (m)
15 August 2023	Low Tide	0414	0.39
	High Tide	1122	2.97
	Low Tide	1657	1.25
	High Tide	2149	2.59
16 August 2023	Low Tide	0447	0.40
	High Tide	1148	3.06
	Low Tide	1723	1.15
	High Tide	2226	2.68
17 August 2023	Low Tide	0515	0.42
	High Tide	1212	3.12
	Low Tide	1748	1.04
	High Tide	2306	2.72
18 August 2023	Low Tide	0541	0.46
	High Tide	1233	3.14
	Low Tide	1812	0.92
	High Tide	2350	2.70
19 August 2023	Low Tide	0608	0.52
	High Tide	1255	3.12
	Low Tide	1837	0.80
	High Tide	0034	2.64
20 August 2023	Low Tide	0636	0.62
	High Tide	1317	3.24
	Low Tide	1906	0.68
	High Tide	0117	2.54
21 August 2023	Low Tide	0707	0.76
	High Tide	1338	2.91
	Low Tide	1938	0.59
	High Tide	0200	2.41
22 August 2023	Low Tide	0740	0.94
	High Tide	1357	2.75
	Low Tide	2015	0.52
	High Tide	0246	2.27
23 August 2023	Low Tide	0815	1.15
	High Tide	1415	2.60
	Low Tide	2100	0.49
	High Tide	0342	2.13
24 August 2023	Low Tide	0856	1.39
	High Tide	1435	2.46
	Low Tide	2157	0.47
	High Tide	0510	2.06
25 August 2023	Low Tide	0952	1.63
	High Tide	1514	2.34
	Low Tide	2313	0.42
	High Tide	0700	2.16
26 August 2023	Low Tide	1148	1.81
	High Tide	1654	2.25
	Low Tide	0033	0.30
	High Tide	0821	2.39
27 August 2023	Low Tide	1345	1.73
	High Tide	1854	2.36
	Low Tide	0144	0.14
	High Tide	0923	2.68
28 August 2023	Low Tide	1455	1.49
	High Tide	2005	2.59
	Low Tide	0247	-0.02
	High Tide	1011	2.98
29 August 2023	Low Tide	1547	1.18
	High Tide	2106	2.82
	Low Tide	0342	-0.14
	High Tide	1051	3.25
30 August 2023	Low Tide	1630	0.84
	High Tide	2207	3.00
	Low Tide	0432	-0.17
	High Tide	1128	3.47
31 August 2023	Low Tide	1712	0.52
	High Tide	2307	3.12

Tide Times for Port



Tide Times for Gwadar			
Lat: 24°48' N Long: 66°58' E			
Date	Tide	Time (PKT)	Height (m)
15 August 2023	Low Tide	0346	0.13
	High Tide	1040	2.18
	Low Tide	1636	1.08
16 August 2023	High Tide	2134	1.76
	Low Tide	0417	0.13
	High Tide	1104	2.22
17 August 2023	Low Tide	1705	0.98
	High Tide	2212	1.82
	Low Tide	0445	0.16
18 August 2023	High Tide	1128	2.24
	Low Tide	1733	0.87
	High Tide	2251	1.85
19 August 2023	Low Tide	0512	0.23
	High Tide	1151	2.25
	Low Tide	1803	0.75
20 August 2023	High Tide	2329	1.85
	Low Tide	0539	0.34
	High Tide	1215	2.25
21 August 2023	Low Tide	1833	0.63
	High Tide	0009	1.81
	Low Tide	0606	0.47
22 August 2023	High Tide	1239	2.22
	Low Tide	1904	0.52
	High Tide	0050	1.75
23 August 2023	Low Tide	0634	0.63
	High Tide	1303	2.18
	Low Tide	1937	0.44
24 August 2023	High Tide	0133	1.67
	Low Tide	0703	0.80
	High Tide	1328	2.11
25 August 2023	Low Tide	2013	0.37
	High Tide	0223	1.59
	Low Tide	0736	0.99
26 August 2023	High Tide	1357	2.04
	Low Tide	2056	0.33
	High Tide	0324	1.52
27 August 2023	Low Tide	0819	1.17
	High Tide	1430	1.96
	Low Tide	2149	0.29
28 August 2023	High Tide	0455	1.49
	Low Tide	0930	1.34
	High Tide	1512	1.88
29 August 2023	Low Tide	2257	0.24
	High Tide	0722	1.62
	Low Tide	1119	1.44
30 August 2023	High Tide	1612	1.80
	Low Tide	0014	0.14
	High Tide	0818	1.82
31 August 2023	Low Tide	1309	1.41
	High Tide	1739	1.77
	Low Tide	0125	0.00
1 August 2023	High Tide	0857	2.03
	Low Tide	1423	1.26
	High Tide	1918	1.83
2 August 2023	Low Tide	0225	-0.13
	High Tide	0933	2.22
	Low Tide	1519	1.05
3 August 2023	High Tide	2035	1.98
	Low Tide	0317	-0.22
	High Tide	1007	2.39
4 August 2023	Low Tide	1607	0.80
	High Tide	2136	2.14
	Low Tide	0404	-0.23
5 August 2023	High Tide	1041	2.52
	Low Tide	1652	0.53
	High Tide	2231	2.26

A rustic wooden signpost stands on a sandy beach. The signpost is made of several horizontal wooden planks stacked on a vertical post. The background shows a calm blue sea with a few small boats in the distance under a clear sky. The quote is centered on the signpost, enclosed in a white rounded rectangular frame with large quotation marks at the top and bottom.

LIVE IN THE
SUNSHINE,
SWIM THE SEA,
DRINK THE
WILD AIR.

Ralph Waldo Emerson –