

BIMP EAGA Business Council (Malaysia, Sabah) to provide technical assistance in developing Roadmap to Blue Port (for Sabah Ports Sdn Bhd, Tawau and Kota Kinabalu) and Roadmap to Green Port (for POIC, Lahad Datu) in Sabah

On **8 March 2024**, BIMP EAGA Business Council has made a courtesy call to the official of Sabah Ports Sdn Bhd, to discuss and deliver the briefing on Roadmap to Blue Port. A follow up Official Letter to Sabah Port Sdn Bhd's Chairman will be submitted to their management to seek cooperation to work on the Development of Roadmap to Blue Port for Sabah Port Sdn Bhd (Tawau and Kota Kinabalu).



Group photo with the official of Sabah Port Sdn Bhd with Dr Raymond Alfred and Mr Razman Paimin after the brief discussion on the Blue Port Concept.

BIMP EAGA Business Council (Malaysia, Sabah) led by Dr Raymond Alfred will provide technical guidance to enable Blue Port Concept and certification to be developed in Sabah Port Sdn Bhd (Tawau and Kota Kinabalu).

The concept of Blue Port

Most coastal communities are highly dependent on fishing activities. The value chain of the fisheries sector is specifically challenging in social, economic and environmental terms. Activities related to the fish value chain, such as catching, landing, processing and commercialization are strongly interrelated and dependent on other sectors, such as ship building, technology, support services, biotechnology, energy and others.

Most of these activities are located in the area of influence of ports, so that in port city regions. Considering that the fishing sector is one of the areas most prioritized by regional and national authorities within coastal development strategies, it is logical to think that fishing ports should work on implementing a process of Blue Transformation, based on the blue economy approach, through their planning processes. The blue economy approach is defined by the World Bank as the “sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem”. Accordingly, it implies the need for enhancing the synergies between fishing sector and others implemented at coastal areas, such as tourism, energy, aquaculture, among others.

Ports are considered to be one of the main drivers of the blue economy because of their capacity to influence social, economic and environmental issues. Coastal communities should be placed at the heart of all policies and activities related to the strategic and operational planning for coastal areas. More and more multilateral and international organizations are analyzing the extent to which a port can be a catalyst for development within its area of influence.



Marine products that is currently available at Tawau Wet Market. control of IUU fishing, and the need for investment in digitized traceability systems.

Marine ports are defined as harbours for landing and distributing goods and this is also the case for fishing ports. In the context of this document, fishing is considered an

economic activity which, when it is well-managed, stimulates development. It is common for fishing ports to be integrated into general cargo ports because the loading and offloading of fish at harbours and docks is part of the industry's commercial operations. A fishing enterprise may also require general cargo to be transported, especially if fish is processed.

Privately owned jetty operated in Tawau to fulfil the Blue Port Criteria.

The fish value chain is linked to fishing ports, loaders, customs, retailers, the processing industry, ship-owners, the shipbuilding industry, etc., and these in turn are related to legal and regulatory affairs (sanitary requirements, customs, etc.) as well as to environmental issues, such as



marine resources management and/or the monitoring of carbon footprint. Moreover, a just blue

economy will involve blue human capital by enhancing labour conditions, gender equality and the recognition of Indigenous Peoples are relevant to the fish value chain.



One of the species (Milchthys Miluy Sp.) that is originally from the Indonesian Marine landscape, sell in Tawau Wet Market.

Ports are considered to be knowledge hubs where many activities take place, all of which have a direct influence on people’s lives. Maximizing this impact allows ports to be a source of value on which strategic and operational local development strategies may rely. Blue Transformation occurs when fishing ports design and

implement management and planning processes to enhance the “triple bottom line” of fishing and commercial ports. Such planning includes preserving the environment (e.g. reducing pollution) while fostering social benefits (e.g. decent and fair labour), and economic growth (e.g. sustained profits). Port authorities are responsible for the compliance with the regulation of the activity within ports.

As a facilitator, fishing port authorities and their stakeholders enable economic activities such as fish markets, fish processing and landing sites, etc. As a community promoter, fishing ports are considered to be part of the sustainable food value chain through the provision of sanitary controls and traceability systems. They are also able to provide for community welfare by minimizing environmental impact and creating positive port–city links. Having both land and sea communication infrastructures is of utmost importance to add value to fishing and the development of local communities.

The role of fishing ports in blue economy strategies is clear (World Bank and United Nations Department of Economic and Social Affairs, 2017). In Table 1, the relationship between fishing and ports is elucidated and examples of good practices by several ports are presented.

Table 1: The relationship between fishing and ports

No	Fishing focus area and related issues	Port contribution (Examples)	Good practices related to sustainability
1	The fishing sector must be managed responsibly. to contribute to sustainable development	The Port Authority and stakeholders are engaged with the implementation of The Agreement on Port State Measures (PSMA) (FAO, 2022a) and fighting illegal, unreported and unregulated (IUU), fishing Code of Responsible Fishing Surveillance and inspection services.	This is pertinent to those ports with a specific focus on these fishing areas, such as the ports of Kenya, Costa Rica and the European Union.

2	The main threats to the fishing sector come from irresponsible management of resources, pollution and climate change, among others	Becoming a blue port is a contribution to the preservation of the climate and ocean. It usually involves actions related to blue energy, blue biotechnology and greening, among others.	Los Angeles, United States of America; Vigo, Spain; and Port Louis, Mauritius are positioned as “green ports”. The Port of San Diego in the United States of America has implemented the Port Master Plan with nature-based solutions for the native oysters living on the shoreline adjacent to the Chula Vista Wildlife Refuge in south San Diego. Similarly, in Bremerhaven, Germany, a cluster was established around the local fishing industry, along with a start-up centre for biotechnologies and research institutes. In 2006, the Port of Huelva, Spain, embarked on a programme to restore dunes, marshes and beaches along 4 km of the Odiel River’s left bank. These environments had been seriously degraded and contaminated by the port’s activity and intensive industrial activity.
3	The main threats to the fishing sector come from irresponsible management of resources, pollution, and climate change, among others.	Becoming a blue port is a contribution to the preservation of the climate and ocean. It usually involves actions related to blue energy, blue biotechnology, and greening, among others	Ecological engineering, including the replanting of <i>Spartina maritima</i> , a type of cordgrass native to the coasts of western and southern Europe, has helped to reduce the presence of invasive species and allowed the growth of vegetation and biodiversity (macroinvertebrates, fish and birds).
4	Contribution to food security and nutrition, specifically related to traceability	Investing in specific actions to ensure traceability through fish markets and surveillance	The Port of Vigo in Spain has developed and recently begun to implement the concept of TTQS: traceability, transparency, quality and sustainability. A modern auction and market centre based on TTSQ (transparency, traceability, quality and sustainability) marketing principles not only ensures responsible marketing of fish products, but also helps to implement the PSMA. Specific projects like Fish Market 4.0 are being implemented. Another example from Port Louis, Mauritius, is the promotion of the concept of a seafood hub which aims to reinforce seafood exports, with the appropriate conditions (Cervigni and Scandizzo, 2017).
5	The port as a hub that promotes competitiveness and sustainability	Fostering innovation through promotion of entrepreneurship and research. The industry collaborates by participating in projects. Enhancing cooperation between fisheries sector and other blue economic sectors (tourism, aquaculture, energy, others)	The ports of Pireaus, Greece; Lisbon, Portugal; San Diego, United States of America; Cork, Ireland; and Quebec, Canada, promote specific programmes on entrepreneurship. These are focused on promoting innovation related to fishing and other activities associated with the port. The programmes are not promoted in an isolated way but are integrated with other public and private initiatives. Other ports have a specific focus on innovation and participate as partners in research projects, or in collaboration programmes between researchers and industry. For example, the port city of Saint Georges, Grenada plays a role in the local fishing industry’s export promotion and the Port of Vigo, Spain and the ports of Norway) are also strongly focused on this area.

6	Promotion of professional skills and acceptable labour conditions and a focus on inclusion	A wide range of professional skills are required in a port's area of influence. New challenges require new qualifications and the reinforcing of existing professional skills. Ports may work together with professional training institutions and universities.	<p>Port authority runs a Maritime School of Excellence that aims to reinforce and update skills.</p> <ul style="list-style-type: none"> • Launching a programme called “Blue Careers” to reinforce knowledge and skills through short courses on climate change and fish marketing, among others. • Tailor-made programme for capacity building on the environment. • Offers training in sustainable mobility for maritime transport and fishing, including training in the latest technologies used in shipbuilding, boating and naval mechanics. Adopting a highly proactive, multifaceted communication strategy aimed at young people. • In Singapore, PSA International (PSA) Officially launched the RP-PSA Experiential Lab on 5 January 2018. The laboratory has equipment capable of simulating operations at PSA's existing terminals and will enable students to see the potential impact of changes made in a variety of scenarios. • Relevant training that include topics such as various aspects of urban redevelopment, particularly mobility and accessibility, protection of the environment and preservation of natural resources; and sustainable urban development.
7	Decarbonization of fishing ports by developing a smart energy system/energy optimization	Reduce dependence on fossil fuels by improving energy efficiency and exploring renewable energy potential.	



Datuk Seri Panglima Yong Teck Lee, witnessed by POIC's Board of Directors to deliver the token to Dr Raymond Alfred after the brief presentation on the Green Port Concept

On **19 February 2024**, BIMP EAGA Business Council has made a courtesy call to Datuk Seri Panglima Yong Teck Lee and POIC's Board of Directors, to deliver the briefing on Roadmap to Green Port. A follow up Official Letter (**March 5, 2024**) to POIC Chairman has been submitted to POIC to seek cooperation to work on the Development of Roadmap to Green Port for POIC.

The concept of **Green Port**

A blue fishing port should be aligned with the **“Green Port”** concept which promotes the protection and conservation of the maritime and coastal environment, making responsible use of natural resources, practicing sustainability and energy efficiency. For a better understanding of the meaning of being green, there are available guides (ESPO, 2021) and good practice repositories (IAPH, 2022) that might be consulted. Opportunities and constraints to address the above-mentioned challenges are the following:

- Regarding de-carbonization, it is advised to implement alternative clean and renewable energies, such as changing the fuel energy generation system on vessels to clean alternative energy or introducing renewable energies to the operations of the fishing port. However, some of these technologies are costly or still in development and must be improved, with the result that vessels and ports are still highly dependent on fossil fuels. So that, the initial effort could be done in port facilities with international support with the involvement of fishermen.
- With respect to enhancing fishery resources management, some of the challenges might be linked to dissemination of information, a deficit of regulations, weak governance, poor surveillance and control of IUU fishing, and the need for investment in digitized traceability systems.
- Regarding marine ecosystem conservation, there is a need for actions aimed at minimizing the impacts of port-related activities on marine ecosystems, a lack of facilities that comply with laws relating to pollution and plastics, and a need to appropriately manage marine resources, including adding value to products and enhancing access to markets. Also, sustainable dredging and “working with nature” as means to protect / not disturb marine habitats and biodiversity should be considered. Moreover, underwater noise from shipping and its impact to marine mammals could be mentioned.



Kernel transfer from Cargo Ship at the Port is not carried out sustainably.

- The establishment of a waste management system and the development of a circular economy model for the entire value chain is another significant challenge for fishing ports. The implementation of an efficient circular economy model, and encouraging and diversifying the use of fish waste, would also

contribute to reducing the percentage of fish stocks that are exploited beyond biologically

sustainable limits, maximize the ecosystem goods and services obtained from the ocean and resolve some of the difficulties relating to the expected increase of food demand as a result of an increase in the world's population.

- A key challenge is the implementation of ocean literacy and capacity building programmes which generate real awareness of marine conservation among the general public and workers. Thus, practical actions to facilitate their involvement are identified.



Water Quality Monitoring in POIC Port to be reviewed to meet the Green Port Certification Criteria.

- While the mitigation of climate change by ports is justified, the reduction of greenhouse gas (GHG) emissions and improvements in energy efficiency are key. Ports not only apply strategies to decrease GHG emissions on the portside, but also implement measures

to reduce shipping emissions. As shipping emissions are expected to increase (IMO, 2018b), the International Maritime Organization (IMO) has adopted an initial strategy to reduce GHG emissions from international shipping (IMO, 2018c). The strategy sends a strong signal to ports to facilitate the reduction of GHG emissions at the ship–port interface. Further, to fulfil the strategy the IMO adopted a resolution titled “Invitation to member states to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from ships” (IMO, 2019). The resolution encourages cooperation between ports and the shipping industry. To achieve the above, an energy audit of fishing vessels should be considered.

- Finally, the lack of knowledge and the lack of funding opportunities for the implementation of such initiatives are significant constraints in the process of overcoming these challenges.