



**Project Preparation National Inception Workshop (INDONESIA)  
IKI/IMO/PEMSEA Project on Reducing Maritime Transport Emissions in East and  
Southeast Asian Countries (Blue Solutions Project)**

**9-10 September 2021  
Online via MS Teams**

**WORKSHOP PROCEEDINGS**

# Project Preparation National Inception Workshop (INDONESIA) IKI/IMO/PEMSEA Project on Reducing Maritime Transport Emissions in East and Southeast Asian Countries (Blue Solutions Project)

## PROCEEDINGS

### 1. Introduction

Following the regional kick-off meeting for the preparation phase of the International Climate Initiative/ International Maritime Organization/Partnerships in Environmental Management for the Seas of East Asia (IKI/IMO/PEMSEA) Project on Reducing Maritime Transport Emissions in East and Southeast Countries (Blue Solutions Project)<sup>1</sup> that was conducted on June 18, 2021, a consultation meeting between and among IMO, PEMSEA, relevant government agencies (Directorate of Port Affairs, Directorate of Marine Safety and Seafarers, Directorate of Sea Traffic and Transport, Directorate of Sea and Coast Guard, Organization and Public Organization Division, Legal and International Cooperation Division and Transport Attache, Indonesian Embassy in London) and academic institution (Technology Institute of Sepuluh Nopember (ITS) Surabaya) in Indonesia was conducted on July 27, 2021 to further discuss the participation of the country in the Project. The meeting also discussed the institutional arrangement for the Project in Indonesia, as well as the preparations for the conduct of a national inception workshop to formally initiate the in-country discussions for the Project and involving more relevant stakeholders.

The national inception workshop for the Blue Solutions Project in Indonesia was held virtually on September 9 and 10, 2021 and jointly organized by the Directorate General of Sea Transportation (DGST), Ministry of Transportation (MOT) which serves as the National Focal Agency for the Project, the IMO and PEMSEA.

The 1.5-day national inception workshop was organized to:

- Introduce the scope, objectives and components, including timeline and implementing arrangements for the national project preparation;
- Understand the principal targets and challenges to greenhouse gas (GHG) reduction in the maritime sector in Indonesia;
- Discuss the identification of a national GHG reduction pilot demonstration project in Indonesia; and
- Delve into the national assessment of GHG emissions in the maritime sector in Indonesia.

---

<sup>1</sup> Proceedings of the regional kick off meeting can be accessed at: <https://tinyurl.com/BlueSolProjectPrepKickOff>

## **PART 1: PROJECT OBJECTIVES, WORK SCHEDULE, AND ORGANIZATIONAL ARRANGEMENTS**

9 September 2021, 2:30 PM – 4:30 PM (Indonesia Time)

Online via MS Teams

The workshop was co-chaired by Ms. Aimee Gonzales, Executive Director of PEMSEA and Mr. Marwanto Heru Santoso, Head of the Center for Sustainable Transportation Management (PPTB) Secretariat General of the MOT and National Focal Point (NFP) for the Project in Indonesia. The DGST and PEMSEA Resource Facility (PRF) served as Secretariats to the workshop.

### **2. Opening of the Workshop**

- 2.1 Ms. Aimee Gonzales, Executive Director of PEMSEA** welcomed the participants and explained that the workshop is part of a series of consultations in the participating countries and a follow-on activity to the regional kick off meeting that was held in June for the development of a full proposal for the Blue Solutions Project. Ms. Gonzales mentioned that the workshop in Indonesia is the 3<sup>rd</sup> for the Blue Solutions Project following the Philippines and Vietnam. She briefly introduced PEMSEA as the regional coordinating mechanism that was created by 11 countries in the East Asian Seas (EAS) region including Indonesia for the implementation of the shared regional strategy, i.e., the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA). She mentioned that PEMSEA works with the Ministry of Environment and Forestry (MOEF) as the NFP for the implementation of SDS SEA in Indonesia through integrated management approaches and partnerships. She also indicated other ongoing initiatives of PEMSEA in Indonesia such as the UNDP/GEF/IMO Glofouling Partnerships Project and MEPSEAS together with DGST, and the development and implementation of the UNDP/GEF Arafura-Timor Sea Ecosystem Action Plan II (ATSEA2) . Finally, she explained that PEMSEA currently serves as the co-implementing partner together with IMO for the preparation phase of the Blue Solutions Project and with financial support from the German Government.
- 2.2 Ms. Gyorgi Gurban, Head of the Projects Implementation, Department of Partnerships and Projects,** extended her greetings on behalf of IMO. Ms. Gurban highlighted the importance of the Project in looking at the GHG emission reduction goals, the development of road maps, the “cherry of the cake” or the most important component of the Project, i.e., the identification of technical solutions for the decarbonization of the maritime sector. She added that the Project will also entail knowledge sharing with the engagement of knowledge partners such as Japan, RO Korea and Singapore and is also hoped to catalyze investments from key financing institution and development banks. She indicated that she looks forward to the workshop as an important step in understanding how to work together in reducing GHG emissions in the maritime sector.
- 2.3 Ms. Nadine Bresemann, Head of Maritime Transport, PEMSEA** provided a background of the Project’s funding agency i.e., the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). She explained that the Government of Germany is very committed to meeting the 1.5° temperature target and that the IKI has supported more than 750 climate and biodiversity projects in over 60 countries worth EUR 4.5 billion. She expressed her appreciation for the conduct of the kick off meeting and to move forward with the project preparation in Indonesia.

**2.4 Mr. Marwanto Heru Santoso, Head of the Center for Sustainable Transportation Management (PPTB)** expressed that he was honored to be appointed as the NFP of Indonesia for the Blue Solutions Project. He added that the Project supports the common goal and in line with the country's mitigation efforts in reducing GHG emissions in the maritime sector. He indicated that the country has submitted its Nationally Determined Contributions (NDC) targets to 2030, which includes GHG reduction in the maritime sector. GHG reduction is also one of the strategic targets identified in the country's Medium Term Development Plan. Mr. Santoso believed that the Project will have beneficial impacts in Indonesia particularly in the maritime sector. Finally, he thanked PEMSEA, IMO and IKI and hoped for a successful workshop.

### **3. Introduction of Participants**

**3.1 Mr. Herwindo Danevianta of DGST** facilitated the round of introductions from the participants from Indonesia, which included representatives from the PPTB; DGST; Center for Partnerships and International Cooperation; Directorate of Marine Safety and Seafarers; Directorate General of Inland Waterways, Ferry Transport; Directorate of Environmental Affairs, National Planning Agency; Planning Division of Directorate of Sea Transportation; Bureau of Classification Indonesia; Coordinating Ministry for Maritime and Investment; National Development Planning Agency; Ministry of Energy and Mineral Resources; Directorate of Road Transport; Port Authority of Tanjung Priok and PERTAMINA. The international project team consists of PEMSEA and IMO also made a short introduction. The list of participants is given in Annex 1.

### **4. Inception Workshop Program and Schedule**

**Ms. Aimee Gonzales of PEMSEA** introduced the 2-part program for the inception workshop, i.e., part 1 covered an introduction to the proposed project and a discussion of the principal targets and challenges to GHG reduction in the maritime sector in Vietnam, including discussions of the on-going projects and plans on GHG reduction in the country and how the Blue Solutions Project can assist in their implementation; part 2 had a more technical focus addressing the two key aspects of the project preparation phase, i.e., a) identification of the national GHG reduction pilot demonstration project, and b) national GHG emissions assessment for the maritime sector. The full program is given in Annex 2.

### **5. GHG Emissions and the Maritime Sector: National Priorities, Objectives, Challenges and Needs**

**5.1 Ms. Dana of PPTB** explained that PPTB serves as coordinator for GHG reduction in the maritime sector in Indonesia. She presented the existing national policies on GHG emission in Indonesia, including the Nationally Determined Contribution (NDC) that identified 29% and 49% reduction in GHG emission levels by 2030 for its conditional and unconditional targets, respectively. The energy sector which includes the maritime sector has 11% GHG reduction target. GHG reduction is also identified as one of the priorities in the National Mid-Term Development 2020-2024 and one of the key performance indicators in the MOT's Strategic Plan 2020-2024. Ms. Dana indicated that the energy sector has identified 5 major activities in terms of GHG reduction and responding to climate change, including the promotion and implementation of: 1) energy efficiency, 2) renewable energy, 3) cleaner energy, 4) fuel switching, and 5) AFOLU (post mining reclamation). She explained the implementation road map for the country's NDC and the identified mitigation actions in the transport sector as part of the implementation of the Ministerial Decree (KP 201/2013). Finally, she expressed that it is hoped that the Blue Solutions Project can assist in having a deeper study on the baselines, projections and scenarios of GHG emissions in the

maritime sector and should a pilot port be selected to implement energy efficiency in port, ship or truck operations that it can be replicated in other locations in the country.

- 5.2 Mr. Stephanus Risdiyanto, Deputy Director of Pollution Prevention and Ship Safety Management and Marine Environment Protection, Directorate of Marine Safety and Seafarers, MOT,** presented the international commitment (e.g., MARPOL Annex 6) and national regulation (Ministerial Declaration PM No. 29, 2014) relevant to air pollution prevention in Indonesia. He explained that based on calculations following IMO's GHG study, CO<sub>2</sub> is the largest emission from ships compared to other gases and pollutants and mostly contributed by container ships. He further explained that in compliance to MARPOL's regulations of SO<sub>x</sub> and NO<sub>x</sub>, certificates are issued to ships in Indonesia that are compliant to the standards. The country is also obligated to report to IMO on its compliance to MARPOL Annex 6. He mentioned that MOT is currently working on the regulation to make the reporting of fuel consumption of ships in the agency's data collecting system compulsory. Currently, the reporting of ships to the data collecting system is still voluntary. He presented some of the efforts of the country in terms of addressing the challenges in the promotion of green shipping, including replacement of ageing ships, reduction of gas emissions, promoting energy efficiency, B30 program (mixing of 30% biodiesel with 70% diesel fuel), production of low sulfur fuel oil, and establishment of shore connection facility. He hoped that the Project can assist in automating the calculation of CO<sub>2</sub> emission.
- 5.3 Mr. Aditya Trisandhya Pramana as Senior Manager Convention ,** representative from the **Indonesian Classification Bureau (BKI)** introduced BKI as an entity appointed by the Government of Indonesia to provide classification of Indonesian-flagged vessels, and monitor and verify the compliance of ships to IMO regulations (e.g., MARPOL 6). He presented IMO's GHG Reduction Strategy that was adopted in 2018 and aims to reduce at least 50% of GHG emission from shipping by 2050 and explained that BKI is tasked to verify the Energy Efficiency Design/Operational Index of ships in Indonesia. BKI is also tasked to carry out the verification and validation of actions of state enterprises in the shipping sector on reducing GHG emissions. Actions on GHG reduction in the maritime sector focuses on 5 areas, i.e., 1) Green Development; 2) Energy Efficiency; 3) Green Transportation; 4) Smart Development; and 5) Green Shipping.
- 5.4 Mrs. CLAUDIA,** representative from the **Directorate of Mitigation, Ministry of Environment and Forestry** expressed her appreciation and support for the Blue Solutions Project. He believed that the Project is in line and will support the achievement of the country's NDC and IMO targets. He added that the Project will provide an opportunity and beneficial to the maritime sector in getting data and other tools in support of its NDC commitments. He indicated that they will coordinate with the NFP and other units of the MOT on technical issues and other needs for the implementation of the Project. He also indicated the need to enrich the data on GHG emission in the maritime sector for subsequent projections and will be beneficial in moving forward the sector towards its NDC commitment. He hoped that the lack of data in the maritime sector can be addressed through the Project.
- 5.5** The representative from the **Port of Tanjung Priok** indicated that the port is in line with the objectives of the Blue Solutions Project in terms of minimizing carbon emissions in the maritime sector. He added that Tanjung Priok is the biggest port in Indonesia, which receives around 500 ship calls a year and consist of more than 30 terminals. The Port along with all its terminals currently implements efforts on reducing GHG emissions such as: 1) shore power connection and looking into ways on how to encourage more ships to participate; 2) surveillance of ships for the use of low sulfur oil fuel; 3) monitoring of truck emissions; 4) improvement of berthing space for bigger ships; 5) air quality monitoring in the port area;

and 6) implementation of green ports where in they work with communities for planting activities along the beach and streets.

**5.7 Dr. Muhammad Badrus Zaman, thhe National Project Coordinator of the Blue Solutions Project in Indonesia** explained some of the studies/analysis conducted in his University in reducing GHG emissions in the port. He mentioned that GHG reductions in the port should consider maritime transportation, port facility, and land transportation into and off the port. In terms of ships, he indicated that they considered primary (i.e., reducing fuel consumptions and innovations in fuel utilization) and secondary (use of scrubber and application of close/open/hybrid systems) solutions. He indicated that they had a collaboration with the Port in Surabaya for the data collection and automated analysis of traffic conditions in the port. They also conducted analysis of the loading and unloading process of trucks in the port. He mentioned that their studies should also consider national and IMO regulations on GHG emissions.

**5.8** The representative from the **Directorate General of Land Transport** referred back to the presentation of Ms. Dana of PPTB and reiterated some of the mitigation actions for GHG reductions in the transportation sector such as traffic management, rapid transit development, public transport renewal, use of non-motorized transport, alternative energy utilization, among others.

**5.9** The following were clarified from the above presentations of Indonesian participants:

- On the information shared by Dr. Badrus and whether it was related to specific GHG study in the country. Dr. Badrus explained that he provided an overview of their activity in the University such as the analysis of traffic trends and the estimation of GHG emissions from trucks in the port.
- On the data on the number of trucks or hinterland transport in Tanjung Priok. It was indicated that the number of trucks is dependent on days or holidays. The representative from Tanjung Priok also indicated that the Port is currently implementing the INAPORT, an advance notification system that allows to monitor incoming ships and promotes more efficient operations. He added that Tanjung Priok is the main port and serves as benchmark for other ports in Indonesia. Almost 74% commodities in the country come through the port.
- Mr. Zabi Bazari congratulated Indonesia for the participation of all relevant stakeholders. He summarized his observations of the stakeholders' presentation as follows: 1) provided an overall picture of Indonesia's efforts towards zero emission; 2) the Blue Solutions Project is very compatible with the country's national strategies policies, which is a very good justification for the Project; and 3) there were lot of reference to SO<sub>x</sub> and NO<sub>x</sub> but the Project should consider its significant impact on GHG reduction and secondary consideration on other air pollutants (e.g., SO<sub>x</sub> and NO<sub>x</sub>).
- Mr. Adrian Ross clarified on the status of the implementation National Mitigation and Action Plan, including the years it covered. He also requested for information on any projects that have been initiated in the 5 focus areas identified in the Plan. It was clarified that some actions in the National Action Plan for the Maritime Sector have been implemented since 2013. There are issues however on the lack of, and the need to collect data. It was noted that there were studies conducted internally in PPTB and used in developing policies but cooperation on further studies will be very helpful to support the implementation of the Plan.

- The representative of the Directorate for Marine Safety indicated that they are ready to participate in the Blue Solutions project but would need to coordinate with other Directorates (e.g., Ports).

## 6. Blue Solutions Project Introduction, Overview and Scope

**6.1 Ms. Nadine Bresemann, Head of Maritime Transport, PEMSEA**, expressed that a consultation meeting and some sort of kick off meeting for the Project in Indonesia was held in July and joined by 30 participants from relevant agencies and stakeholders in Indonesia. She was impressed by the number of participants to the workshop and grateful for the introduction of the priorities and ongoing initiatives on GHG reduction in Indonesia. Ms. Bresemann introduced the objective of Blue Solutions Project, which is to support the maritime sector's transition to a low carbon future in consideration of the country's national priorities and international commitments. The project will focus on 3 areas in the maritime transport sector, i.e., international and domestic shipping, ports, and hinterland transport. The proposed project has four (4) work packages (WP): 1) assessment of the current GHG status and future scenarios; 2) development of strategies, action plans, and roadmaps; 3) demonstration of selected decarbonization pilot projects; and 4) capacity building, knowledge creation and dissemination, which will be further developed with the stakeholders in Indonesia in the coming weeks. Ms. Bresemann explained that the 2<sup>nd</sup> day of the inception workshop will delve more into WP 1 and 3. She explained the timeline of project implementation that will hopefully start in 2022 and initiate the activities for GHG emissions inventory and implementation of the pilot demonstration projects. She explained that the development of road maps and action plans will follow the GHG inventory while training/capacity building programs will be developed to support the implementation.

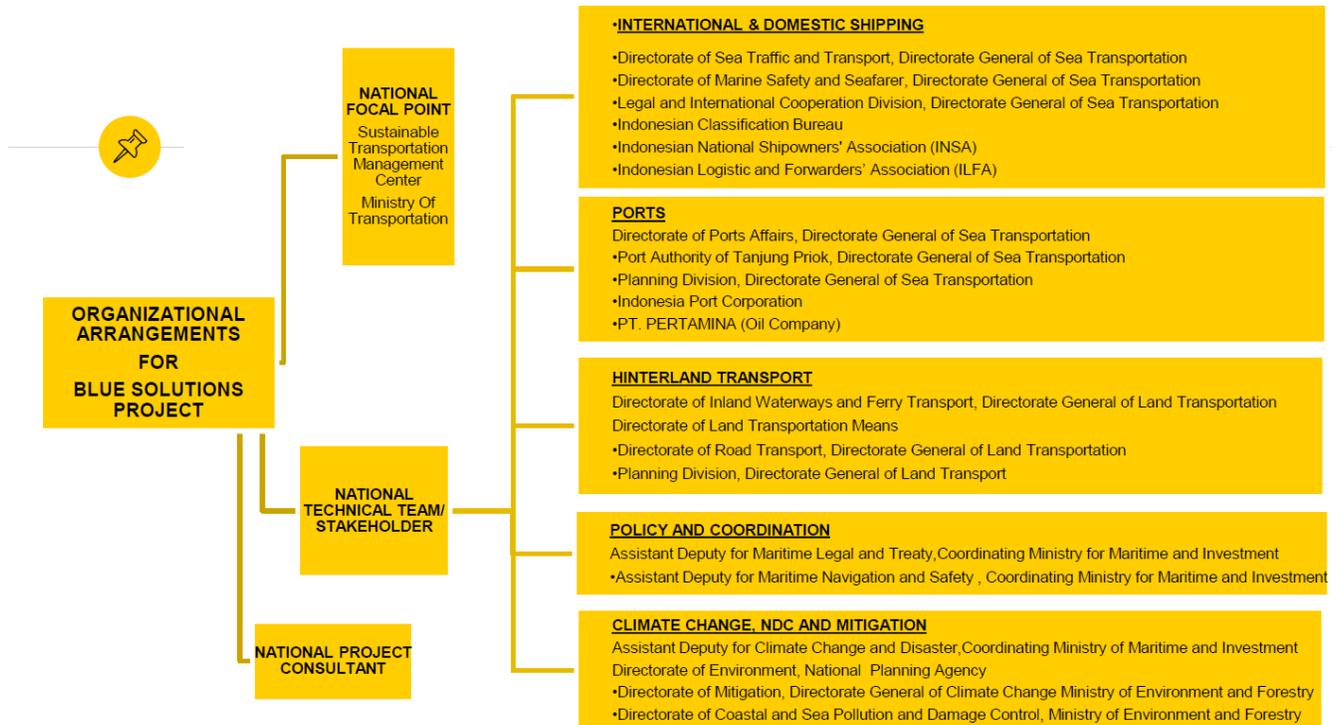
Ms. Bresemann explained that the Blue Solutions Project is a regional project with Indonesia, Malaysia, Philippines, Thailand and Vietnam as focus countries where pilot demonstration projects will be implemented, Cambodia as a participating country will be involved in GHG inventory and regional meetings and capacity building activities while China, Japan, RO Korea and Singapore are invited as knowledge support partners. If approved, the project will have a funding of 15M Euro for 5 years and will be implemented by IMO and PEMSEA. She explained that the Project Team (i.e., IMO and PEMSEA) will support the development of a national project document that will be integrated into a regional project document, which will then be submitted to IKI for review and approval.

Ms. Bresemann explained that the timeline for the development of the national project proposal is quite tight, which should be integrated into the regional project proposal that is targeted to be completed in November. She mentioned two important events, which should be considered in the project preparation, i.e., the innovation forum which will be organized by IMO on September 27-29 and the East Asian Seas (EAS) Congress 2021 on December 1-2 where letters of commitment to the project from participating countries are expected to be showcased. Finally, she expressed her hope that a very good national proposal can be developed with the great team in Indonesia and she is looking forward to the next national workshop scheduled on **September 21, 2021**.

Background document on the Blue Solutions Project is given in Annex 3.

## 7. Organizational Arrangements

**7.1 Mr. Herwindo Danevianta of DGST** presented the organizational arrangements for the Blue Solutions Project in Indonesia. The organizational structure is given below:



**7.2** Clarifications raised following the presentation are as follows:

- Ms. Aimee Gonzales indicated that the organizational structure is very impressive and clarified on the next step for operationalizing the structure. It was noted that the agencies/institutions identified in the organizational will be invited to a meeting to discuss the Project. DGST is still considering if the organizational structure for the Project will be formalized into some form of a National Task Force.
- Mr. Adrian Ross also expressed that the list of agencies in the organizational structure is very impressive. He highlighted that the Project may not have enough funding to fully support the pilot demonstration project thus it is important to consider the engagement of the private sector as part of the technical team. DGST indicated that they will try to contact the different private associations (e.g., shipping, trucking, freight forwarder) including the Classifications Bureau and Ports for possible engagement in the Project.
- The Project Team indicated that as the discussion gets into the specific location for pilot project implementation, specific groups/associations can be further identified and engaged.
- The Project Team raised a question on who/which entity is carrying the main investments in the maritime sector in Indonesia. Furthermore, it was also raised whether the ports in Indonesia are government-owned or privatized and if privatized, who/which entity can potentially carry the pilot project.
- It was noted that the Planning Division/Agency will have more information on private sector investments (e.g., PPP arrangements) in the country.

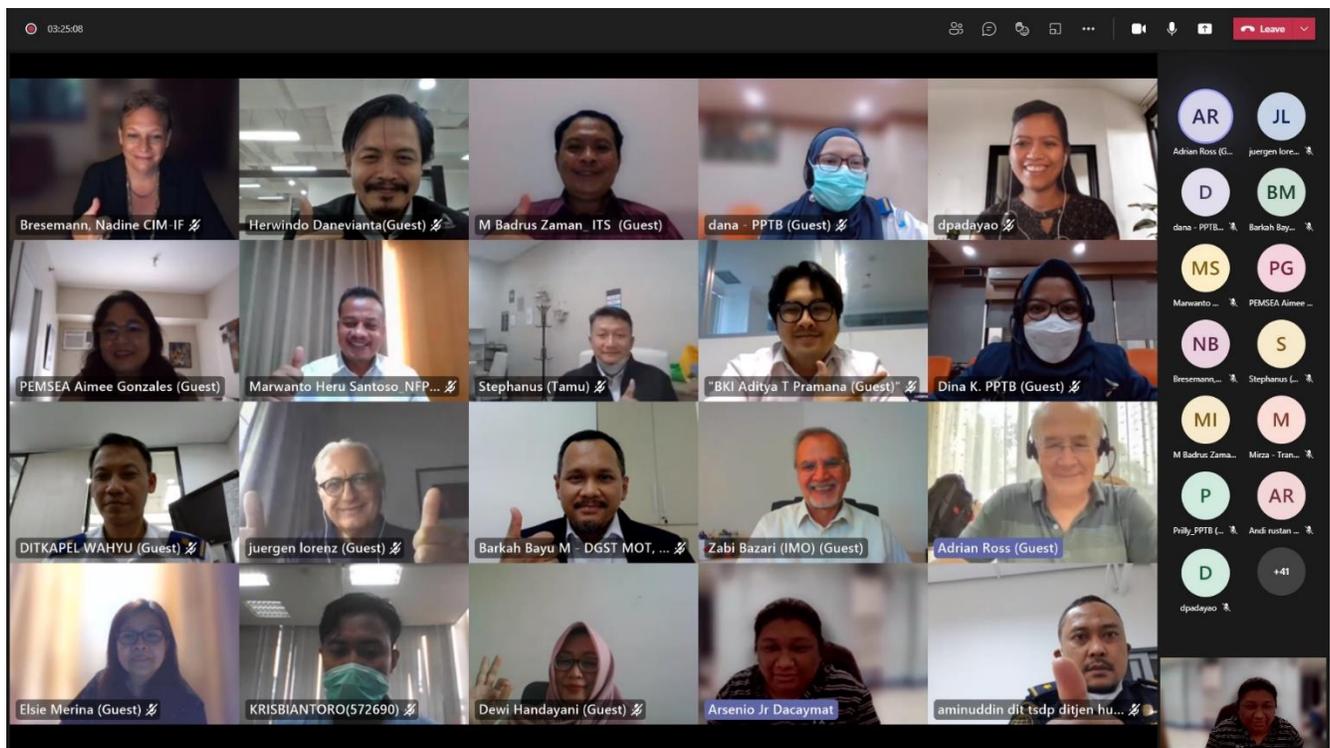
## 8. Closing Messages

8.1 **Ms. Aimee Gonzales, PEMSEA** thanked all the participants and indicated that the workshop was a great leveling off on the priorities and initiatives of Indonesia on GHG reduction. She mentioned key take-aways from the workshop, i.e., the lack of GHG data and the ageing ships in Indonesia and what can we do to address these challenges, among others. Finally, she encouraged everyone's participation to the following 2 sessions, which have a more technical focus.

8.2 **Mr. Marwanto Heru Santoso** expressed that the workshop provided a good introduction to the Project and reminded the participants for the following sessions that will provide more opportunities for discussions on the Project. Finally, he thanked PEMSEA and IMO for organizing the workshop.

*Powerpoint presentations can be found at: [Click here.](#)*

*A recording of the event can be accessed at: [Click here.](#)*



## PART 2A: PROJECT WORK PROGRAM PLANNING: NATIONAL GHG EMISSIONS PROFILE (MARITIME SECTOR) AND NATIONAL GHG PILOT PROJECT PRIORITIES AND LOCATIONS

10 September 2021, 9:00 AM – 11:30 AM (Indonesia Time)

Online via MS Teams

### 1. Opening and Workshop Objectives

- 1.1 **Ms. Nadine Bresemann** provided a short wrap-up of the previous day's workshop and introduced the objective of the 1<sup>st</sup> part of the 2<sup>nd</sup>-day discussions, which focused on the identification of national GHG pilot project priorities and locations. She introduced Mr. Adrian Ross and Mr. Juergen Lorenz, members of the international Project Team, who led and facilitated the discussions.

### 2. National Blue Solutions Project Proposal Preparation: Work Plan and Schedule

- 2.1 **Mr. Adrian Ross** reiterated the objective of the IKI initiative which is to support the transition towards a low carbon future in the maritime sector and the Blue Solutions project aims to accelerate the path towards Indonesia's NDC objectives such as the reduction of GHG emission by 29%-41%. The pilot project can look into projects on efficiency of energy consumption, implementing clean coal production, and the usage of renewable energy in the maritime sector. In the long run, the proposed pilot project can be scaled up to help Indonesia with their national GHG reduction policies. Mr. Ross indicated that the session will cover the steps or process in identifying the pilot demonstration project scope and how the location of the project will be decided upon. Mr. Ross explained the sources of GHG emissions in the maritime sector that can be considered in identifying pilot projects, including 1) port infrastructure and operations; 2) renewable energy and fuel-related activities; and 3) hinterland transport. With a tight timeframe of 12 weeks, the international project team will help in formulating the national project proposal following a 5-step process that will be undertaken with the relevant stakeholders in Indonesia, and with the support of the National Project Coordinator. Handouts that will support the process of identifying the pilot projects and locations will be provided to the participants. Mr. Ross presented the timeline for the development of national Blue Solutions Project in Indonesia. He indicated that the next national workshop is targeted on **September 24, 2021** to review the priority challenges in GHG emissions and initial pilot project ideas in Indonesia and hopefully initiate the screening of the consolidated project ideas. He added that on **October 8, 2021**, it is targeted that another workshop will be convened to discuss and agree upon on the location for the pilot project implementation. On **November 5, 2021**, a workshop is targeted to be convened to will present and review the initial draft of the proposal. Finally, on **November 26, 2021**, a workshop will be organized to finalize the national project proposal, which will then be integrated into the regional Blue Solutions project document.

### 2.2 Clarifications following the presentation are as follows:

- Mr. Barkah Wahyu, DGST indicated that the presented schedules of succeeding workshops are very tight and still subject to the approval of the NFP. He indicated that flexibility in the schedules of project deliverables can be possibly considered. This is also in consideration that the National Project Coordinator has not been officially hired and the need to coordinate with the other agencies. The international Project Team assured that they will be assisting the national team in the conduct of the series of consultations and workshops and the preparation of the national project proposal in order to comply with the project schedule as identified by the Project's

funding agency. The Project Team also indicated that the National Project Coordinator will be hired immediately and hopefully facilitate the process of project preparation in the country.

- Mr. Stephanus Risdiyanto, DGST clarified if the pilot project should be in the form of an entirely new project or if improvement of an existing project can be considered. Mr. Stephanus indicated some of their ongoing initiatives including: reducing fuel consumption of ships; use of IT for vessel operation to lessen waiting time at the port; deployment of data collection system for fuel consumption of ships which is currently implemented voluntarily; use of low sulfur fuel; and ports' enforcement of measures to minimize ships' dwelling. The international Project Team indicated that improvement of existing/ongoing project through technical support would qualify as pilot project. The on-going project including proposed improvements should however meet the goals of the Blue Solutions Project. Identified potential projects will be reviewed extensively to determine its alignments to national priorities and impacts to GHG reduction in the maritime sector in Indonesia.
- Mr. Stephanus Risdiyanto, DGST also mentioned that it will be appreciated if the Project can assist in the automatic calculation of CO<sub>2</sub> value from the data collection system on fuel consumption that have been deployed and for any materials on GHG calculations that can be used in Indonesia.

### **3 National GHG Reduction Pilot Project Preparation: Focal Areas and Strategic Approaches**

**3.1 Mr. Juergen Lorenz** delved into examples of activities and technologies that can be considered in identifying pilot GHG reduction project. He emphasized the proposed physical and functional boundaries for the pilot project in consideration of the timeframe for implementation and the possibility of upscaling and replication following the demonstration. He provided potential activities that can be considered for GHG reductions in: 1) activities within and around the vicinity of the port; 2) renewable energy and fuel-related activities; 3) hinterland transport focusing on feeder traffic to/from the port; and 4) other potential strategy such as ship-design-construction-operation. He emphasized some of the "low hanging fruits" that can be considered in identifying pilot project, e.g., IT-based operations and digitization, use of renewable energy (solar power) in various port operations, use of super capacitors, control of vessel speed, use of alternative fuels, ship-design etc. He explained the limitations (e.g., costs, sustainability) and potential GHG emission reduction in the applications of some of the technologies presented.

The following were raised after the presentation:

- Mr. Stephanus Risdiyanto indicated that Indonesia needs more studies on Hydrogen- and electrical-powered vessel propulsion and requested for available feasibility studies on these including the use of biodiesel that might be useful for the country. He also indicated that there are a lot of information on the application of renewable energy but its application requires capacity building in the shipping sector and infrastructure. Mr. Juergen Lorenz explained that the use of hydrogen fuel is in the early stages and that the conversion and its application require higher cost. He suggested to possibly look into a small-scale pilot to test the application of Hydrogen fuel. He indicated that he will look for materials on the application of biodiesel and Hydrogen fuel and will share them to the participants.
- Ms. Nadine Bresemann indicated that there are some studies conducted by World Bank and the Government of Germany on the lifecycle of fuel (e.g., biodiesel), i.e., from production to the end of the value chain.

- Mr. Barkah Wahyu, DGST clarified whether the pilot project will be financed fully by the donor or will it require co-financing. The Project Team explained that nothing is fixed yet as regards the funding of pilot project. The assessment process will determine if the Project funding can cover the whole cost or if additional funding will need to be brought in. The Project for example can add to an existing investment on ship building in terms of improving the environmental aspect of the initiative. The Project Team reiterated that the process currently being undertaken with the stakeholders is identifying ongoing initiatives and how the Project can assist in closing the gap for funding and technical solutions.
- Mr. Barkah Wahyu clarified that the pilot project may not be completed in 5 years if it will entail the construction of new infrastructure and will require a lot of investment. He also indicated that the technologies presented may take longer than 5 years to implement. He mentioned that there is an existing 5-year National Strategy for Port Development and the National Green Port Development that the Blue Solutions Project can consider in identifying pilot project and port. He explained that Indonesia has many different ports (i.e., 33 provinces and about 200+ ports) with its own characteristics. The pilot project can assist in selecting development priorities in a particular port and how it can be replicated to other ports in Indonesia.
- Ms. Nadine Bresemann explained that the Project donor would like to see a pilot project that can be demonstrated and implemented within the project's time frame., i.e., the pilot project can be completed in 3 years and will be monitored in the remaining 2 years of the project. She added that separate interviews with the stakeholders in Indonesia will be conducted in the coming days to collect project ideas and discuss the details of potential pilot projects, and agree upon on the pilot project that will be included in the national project proposal of Indonesia.
- Ms. Dana indicated the need to undertake further discussion with the stakeholders in identifying the priorities for pilot project. She also indicated the strong interest in implementing the use of renewable energy in the ports but they should prioritize an activity that has the largest impact on GHG reduction. They should also consider a project that can easily be implemented and will not require very high cost. She indicated that they can also consider the implementation of energy efficiency projects in ports like what has been implemented in 2 airports (Soekarno Hatta and Ngurah Rai airports) in the country.
- Ms. Nadine Bresemann explained that energy audit and research studies can be considered under the WP4 of the Project on capacity development.

#### **4. Identifying and Selecting National GHG Pilot Project Priorities and Implementing Arrangements**

- 4.1 Mr. Adrian Ross** reiterated the 5-step process in identifying and selecting the national pilot project and locations. He also introduced the two handouts: Handout 1 – Priority Challenges for GHG emission reduction; Handout 2 – Screening and Selection of a National Pilot Project that will support steps 1 and 2 of the process. He emphasized that it is important to go through the entire process in order to have a clearer focus for the national project. The Handouts provide suggestions on how to identify the priority challenges and criteria for screening the potential pilot projects. The final selection of the pilot project and location will be based on consensus among national stakeholders, IMO/PEMSEA team and the donor. He requested the participants to complete and **submit the Handouts to Mr. Herwindo Danevianta and**

**Ms. Nadine Bresemann by September 20 2021**, which will then be collated, synthesized and presented during the national workshop on **September 24, 2021**.

- Mr. Barkah Wahyu reiterated the schedule for the submission of Handouts on September 20 and the conduct of the next national workshop on September 24. He indicated that they will conduct an internal meeting following the inception workshop in view of the need to coordinate with a lot of institutions. He also requested the assistance of Mr. Badrus and hoped that the schedule will be doable.
- The Project Team raised the possibility of setting up one on one interviews and further discussions with the stakeholders.

## **5. Closing**

**5.1 Ms. Nadine Bresemann** reminded the participants of the following session in the afternoon and thanked all the participants and the speakers for the presentations and fruitful discussions.

**5.2 Mr. Stephanus Risdiyanto** thanked all the speakers and participants and hoped to see everyone in the next session.

*Powerpoint presentations can be found at: [Click here.](#)*

*A recording of the event can be accessed at: [Click here.](#)*

**PART 2B: NATIONAL GHG EMISSIONS ASSESSMENT**  
10 September 2021, 2:00 PM – 4:20PM (Indonesia Time)  
Online via MS Teams

**1. Opening and Workshop Objectives**

**1.1 Ms. Nadine Bresemann, PEMSEA** opened the meeting and provided a short wrap up of the two preceding sessions. She introduced the objective of the workshop, which was to discuss the assessment and/or inventory of greenhouse gas (GHG) emissions in the maritime sector in Indonesia and Mr. Marco Sprong, member of the international Project Team, who led the workshop discussions.

**2. Preparing a National GHG Emissions Assessment (Maritime Sector), Work Planning and Implementing Arrangements**

**2.1 Mr. Marco Sprong**, led the presentation and discussions on the preparation of a national GHG emission assessment in the maritime sector in Indonesia. He highlighted that the workshop aimed to explain the expected inputs from the national team for the GHG emission assessment both during the preparatory and implementation phases of the Project. During the preparatory phase, the Project aims to understand the status of GHG emission inventory in the maritime sector of the country, including the level of data availability while port-specific and national GHG emission inventory/assessment and database will be developed during the implementation phase of the Project. He explained that the GHG assessment will follow the Port Emissions Toolkit that was developed by IMO and will cover the various emission sources in the maritime sector, i.e., international and domestic ships, port operations and hinterland transport. He emphasized the importance of setting the geographical and operational boundaries of the GHG assessment, which will be discussed and agreed upon during project implementation. He provided examples of the sources of CO<sub>2</sub>, one of the GHG, including calculation of CO<sub>2</sub> emission from specific activity (e.g., transportation of port employees).

Mr. Sprong explained the process of data collection for the ports and national level GHG assessments for the Project. He explained that a standardized data collection will be undertaken to allow cross-comparison with other countries. He added that the Project aims to gather any available data from the country during the preparatory phase for the preparation of a country emission profile that will be included in the Project Document. He explained the data collection templates for port level assessment, which covers emission sources from port activities, hinterland transport, and domestic and international shipping, including the level of data availability. The template for the national level assessment covers the available national GHG inventory/assessment, the GHG emission reduction measures, and the relevant national policies and legislations for GHG reduction. He requested the participants to fill out the national level assessment template and send back the accomplished template to the Project Team 1-2 weeks after the workshop. The port level assessment may be accomplished once the priority port location is selected and accomplished templates will be expected 1-2 weeks after.

**2.2** The following were raised after the presentation:

- Mr. Stephanus Risdiyanto indicated that the data required in the Handout are too detailed and they may not have those data readily available. He mentioned that their data on vessels are based on IMO's

standard data collection. He promised to prepare any available data but also indicated that they might lack most of the requested data.

- Mr. Marco Sprong explained that what is important is to determine the available data and what can be collected during the Project. He agreed that data from IMO on ocean going vessels can be used in estimating the emission. He emphasized that the participants can work on what data are available. The data gaps can be addressed in the activities that will be identified for the Project.
- Mr. Andi Rustan indicated that they follow the MARPOL Annex 6 and Part 2 in their data collection system. Available data includes: types of ships, types of fuel consumption, and total fuel consumption for January – December 2019. He also indicated the data recording system where the shipping company can upload their fuel consumption report but is currently implemented by about 12 % of ships in Indonesia on a voluntary basis. They are currently preparing the regulation to make the implementation compulsory.
  - Mr. Marco Sprong responded that GHG emissions can be calculated based on the data collected as mentioned by Mr. Andi Rustan. He emphasized the importance of reporting the number or percentage of ships that are voluntary reporting in the data collection system.
  - Ms. Nadine Bresemann suggested that a special session between Mr. Sprong and Mr. Andi be conducted to further discuss the data needs for the GHG emission inventory.
- Mr. Badrus reiterated that GHG data related to shipping is available from Mr. Stephanus Risdiyanto's team. He highlighted also the need for data on hinterland transport and ports, as well as data from shipping companies. He added that data needs from shipping should be further explained.
  - Mr. Marco Sprong identified some of the required data from shipping, including: the amount of good transported and distance travelled. He asked if there is an existing national database of ships in Indonesia and highlighted that currently what is important is to understand the data availability and assess the data gaps which will be considered in the Project.
- Mr. Juergen Lorenz clarified if the 2014 IMO study on ships and cargo assessment that was presented by Mr. Stephanus Risdiyanto has been updated.
  - Mr. Stephanus Risdiyanto responded that the data presented is based on the IMO study and they currently do not have the capacity to update the data. He indicated that they recognized the need for more studies and detailed data but currently lacks the capacity to address these. He indicated that it would be helpful if information on IT program or system that automates the calculation of CO<sub>2</sub> can be provided.
  - Mr. Marco Sprong suggested the use of Excel sheets for CO<sub>2</sub> calculation which is widely available and used. He also mentioned that Excel is mostly compatible with databases or IT programs should such system will be developed for CO<sub>2</sub> calculation.

- Ms Nadine Bresemann indicated that the initial calculations can be done using Excel sheets but it would be good to have a software or system that can easily be updated anytime in the long-run.
- **Ms. Dana** mentioned that there is an annual publication on GHG emissions in the transportation sector. She indicated the availability of data on fuel sales from ships and land transport at the national level. She clarified if the Project requires a national level inventory or a port and ship-level data and if it would be alright to work on proxies.
  - Mr. Marco Sprong responded that it would be better to work on proxies and data estimation/aggregation from available ports and ships data.
- The Project Team clarified if there is a national level data on ports or if data varies from port to port.
  - Mr. Herwindo Daneviatna responded that there is no national standard on data collection for ports and that data vary per port. He indicated that the Port Authority will know better on which port in Indonesia collects specific types of data.
  - Mr. Stephanus Risdiyanto suggested to contact the Indonesian Port Company (IPC) which is reporting to the Port Authority. He mentioned that Port of Tanjung Priok might have most of the data required and that there is a need to contact the port operator to provide the data.
- The Project Team indicated that they will send the Handout to Mr. Herwindo Daneviatna. They also requested to send the Handout not only to the participants but to other government agencies/ministries or stakeholders that might have access to the data needed.
  - Mr. Herwindo Daneviatna responded that he will coordinate with their Technical Department and other Directorates and Ministries for the data required in the Handout.

### 3. Closing

- 3.1 Ms. Nadine Bresemann, PEMSEA** thanked the participants for the fruitful discussions. She expressed her gratitude to Mr. Heru, Mr. Stephanus and Mr. Herwindo for the great help in organizing the workshop. She indicated that she was impressed with the national team in Indonesia, and she looks forward to working with the team in the ensuing months.
- 3.2. Mr. Herwindo Daneviatna** expressed his appreciation to all the participants for the successful conclusion of the discussions on the process of identifying GHG priorities, GHG emission assessment and work plan for the Blue Solutions Project. He extended his sincere thanks to PEMSEA, IMO and IKI for organizing the meeting. He indicated that Indonesia will work on the preparation of the Project and will hold internal meetings with different stakeholders. He hoped that the two-day workshop was a good start for the Project. He hoped that all participants will commit to future meetings and he looks forward to seeing all the participants on either September 21 or September 24 for the next meeting.

*Powerpoint presentations can be found at: [Click here.](#)*

*A recording of the event can be accessed at: [Click here.](#)*

**Annex 1: List of Participants**

**Project Preparation National Inception Workshop (INDONESIA)  
IKI/IMO/PEMSEA Project on Reducing Maritime Transport Emissions in East and Southeast Asian  
Countries  
(Blue Solutions Project)**

**LIST OF PARTICIPANTS**

**Day 1**

<b>Title</b>	<b>Name</b>	<b>Position</b>	<b>Institution</b>	<b>Phone Number</b>	<b>Email</b>
Ms.	ELSA	Staff	PPTB - Kemenhub	082234663954	efrina79@gmail.com
Mrs.	DANAWIRYYA SILAKSANTI	Environmental Impact Officer	Center for Sustainable Transportation Management - MoT	0811849924	danawiryaa@gmail.com
Mr.	KRISBIANTORO	Junior Environmental Specialist	PT SUCOFINDO	085649454679	krisbiantoro@sucofindo.co.id
Ms.	ELSA EFRINA NUR FAIDA	Staff	PPTB - Kementerian Perhubungan	082234663954	efrina79@gmail.com
Ms.	ELSA EFRINA NUR FAIDA	Staff	PPTB - Kementerian Perhubungan	082234663954	efrina79@gmail.com
Mr.	BONOR SAMUEL CHARLES	Legal Officer	PT Biro Klasifikasi Indonesia (Persero)	+6281383788508	bonor.sc@bki.co.id
Ms.	ISABELLE ACOSTA	Intern	PEMSEA	+63 921 772 3356	iacosta@pemsea.org
Ms.	MARTHA THERESIA JULIANA BR SIREGAR	Staff	Bappenas	+6282364787975	martha.siregar@bappenas.go.id
Ms.	GYORGYI GURBAN	Head of Projects, Department of Projects and Partnerships	IMO	+447394081749	ggurban@imo.org
Ms.	PRILLYA AGUSTI	Staf	Ministry of Transportation	087877961797	prillyaagusti@gmail.com
Mrs.	CLAUDIA	Staff	CMMAI	81293969884	claudiatidara@gmail.com

Mr.	HERWINDO DANEVIANTA	Staf	Directorate General of Sea Transportation	+628998125678	danevianta@gmail.com
Mr.	AZIZ MUKHSIN	Staf	Sucofindo	081909807111	amukhsin@sucofindo.co.id
Mr.	ADITYA TRISANDHYA PRAMANA	Senior Manager Convention	BKI	087888644345	aditya@bki.co.id
Mr.	THOMAS BELL	Programme Manager	PEMSEA	89292992	tbell@pemsea.org
Mr.	M RIZQI FITRA H	Research and Development	PT Biro Klasifikasi Indonesia	081292834339	m.rizqi@bki.co.id
Mr.	JUN DACAYMAT	IT Support	PEMSEA	09308869893	jdacaymat@pemsea.org
Mrs.	TRIBUANA GALAXY	Senior Engineer	BKI	087865000090	galaxy@bki.co.id
Mr.	JAUHAR FUADI	Inspector Oil n Gas DJMigas	KESDM	08158042417	jauhar.fuadi@esdm.go.id
Mr.	WAHYU ARDHIYANTO	Kasi Pencegahan Pencemaran dan Manajemen Keselamatan Kapal Barang dan Peti Kemas	Ditkapel DJPL	+6281315469431	wahyuditkapel@gmail.com
Mr.	BARKAH BAYU MIRAJAYA	Head of International Cooperation and Treaty	Legal and International Cooperation Division, Directorate General of Sea Transportation (DGST) MOT Indonesia	+62811852520	barkah.hubla@gmail.com
Ms.	DEVIES CITRASARI	PENYUSUN BAHAN KEBIJAKAN	DIREKTORAT TSDP	0081326608129	devies_econ@yahoo.co.id
Mr.	EKI DWI WIJANARKO	Analisis Kebijakan Ahli Pertama	Kementerian ESDM	085691939244	eki.wijanarko@esdm.go.id
Mr.	WISNU HANDOKO	Ka OP Priok	Kemenhub	081268882434	wisnubp2ip@gmail.com
Ms.	NADINE BRESEMANN	Head of Maritime Transport	PEMSEA	0063 927n883 1111	nadine.bresemann@ymail.com
Mr.	CHRISTMAN DESPANA	Pengawas KE	Direktorat KE ESDM	081310650295	despana21@yahoo.com
Mrs.	DYAH ANGGRAENI UTAMI	Staff	Kementerian Perhubungan - Ditjen Hubdat	082280399125	dyahanggraini.da@gmail.com

Mr.	REY FACHREVI	Analisis Konservasi Energi	Direktorat Konservasi Energi	081297084009	rey.fachrevi@esdm.go.id
Mr.	STEPHANUS RISDIYANTO	deputy Director for pollution and Ship safety management	Directorate of Marine Safety and seafarers	081382823032	stepnav@yahoo.co.id
Mr.	RADITYO YUDANTO	Energy Conservation Analyst	MEMR NREEC	0818 02795812	radityo.yudanto@esdm.go.id
Mrs.	DEWI HANDAYANI	Guest	UNS	081329236444	dewi@ft.uns.ac.id
Mr.	MUHAMMAD BADRUS ZAMAN	Consultant candidate from ITS	ITS Surabaya	082131082828	drus_zaman@yahoo.com
Mr.	NURCAHYANTO	Policy Analyst	Energy Conservation Directorate	081804042403	cahyo.nurcah@gmail.com
Mr.	KEVIN RIZALDI	Legal & Cooperation Officer	BKI	081334261386	kevin.rizaldi@yahoo.com
Mr.	PUJI ADIATNA	Planner	Planning Division of DGST	081382709081	puji.adiatna2020@gmail.com
Mr.	IMAM APRIYANA	Officer	Center for Sustainable Transport Management	085227465047	imam.apriyana@gmail.com

## Day 2 – Part 2a

Title	Name	Position	Institution	Phone Number	Email
Ms.	ELSA EFRINA NUR FAIDA	Staff	PPTB - Kementerian Perhubungan	082234663954	efrina79@gmail.com
Mr.	REY FACHREVI	Analisis Konservasi Energi	Direktorat Konservasi Energi KESDM	081297084009	rey.fachrevi@esdm.go.id
Ms.	NADIAH SOFYAN	Staff	DGST - MOT	082125717162	nadiahsufyan@gmail.com
Mr.	M RIZQI FITRA H	Research and Development	PT Biro Klasifikasi Indonesia	081292824339	m.rizqi@bki.co.id
Ms.	PRILLYA AGUSTI	Staff	Ministry of Transportation	087877961797	prillyaagusti@gmail.com
Ms.	DANAWIRYYA SILAKSANTI	Environmental Impact Control Officer	PPTB	0811849924	danawiryya@gmail.com

Mrs.	TRIBUANA GALAXY	Senior Engineer	BKI	087865000090	galaxy@bki.co.id
Mr.	PUJI	Planner	Planning Div. of DGST	081382709081	puji.adiatna2020@gmail.com
Mr.	ADITYA TRISANDHYA PRAMANA	Senior Manager Convention	BKI	087888644345	aditya@bki.co.id
Ms.	MARTHA THERESIA JULIANA BR SIREGAR	Staf	Bappenas	082364787975	martha.siregar@bappenas.go.id
Mr.	BONOR SAMUEL CHARLES	Legal Officer	PT. Biro Klasifikasi Indonesia (Persero)	081383788508	bonor.sc@bki.co.id
Mr.	IMAM APRIYANA	Officer	Center for Sustainable Transport Management	085227465047	imam.apriyana@gmail.com
Mr.	JUN DACAYMAT	IT Assistant	PEMSEA	09308869893	jdacaymat@pemsea.org
Mr.	EKI DWI WIJANARKO	Analisis Kebijakan Ahli Pertama	Kementerian ESDM, Ditjen EBTKE	085691939244	eki.wijanarko@esdm.go.id
Mr.	RADITYO YUDANTO	Energy Conserv Analyst	MEMR NREEC	081802795812	radityo.yudanto@esdm.go.id
Mr.	IRLAND AGUSTA RIYAN IRAWAN	Internship student	Asisten Deputi Navigasi dan Keselamatan Maritim Kementerian Koordinator Bidang Kematriman dan Investasi	081329305003	irlandirawans@gmail.com
Mr.	WAHYU ARDHIYANTO	kasi pencegahan pencemaran dan manajemen keselamatan kapal barang dan peti kemas	ditkapel DJPL	081315469431	wahyuditkapel@gmail.com

## Day 2 – Part 2b

Title	Name	Position	Institution	Phone Number	Email
Ms.	ELSA EFRINA NUR FAIDA	Staff	PPTB - Kementerian Perhubungan	082234663954	efrina79@gmail.com
Mr.	BARKAH BAYU M	Head of International Cooperation and Treaty	Legal and International Cooperation Division, Directorate General of Sea Transportation (DGST) MOT	+62811852520	pr.intcoop.dgst@gmail.com

Mr.	THOMAS BELL	Programme Manager	PEMSEA	89292992	tbell@pemsea.org
Ms.	DANAWIRYYA SILAKSANTI	Environmental Impact Control Officer	PPTB	0811849924	danawiryya@gmail.com
Mr.	REY FACHREVI	Analisis Konservasi Energi	Direktorat Konservasi Energi	081297084009	rey.fachrevi@esdm.go.id
Mr.	MUHAMMAD ADLANIE	Student Intern	Asisten Deputi Navigasi dan Keselamatan Maritim Kementerian Koordinator Kemaritiman dan Investasi	081381296966	muhammadadlanie13@gmail.com
Ms.	PRILLYA AGUSTI	Staff	Ministry of Transportation	087877961797	prillyaagusti@gmail.com
Ms.	MIRZA AULIA RAMADHANI	Translator	-	081295200765	mirzaaul@gmail.com
Mr.	PUJI	Planner	Plan. Div. Of DGST	081382709081	puji.adiatna2020@gmail.com
Mr.	M RIZQI FITRA HARIADI	Research and Development	PT Biro Klasifikasi Indonesia	081292824339	m.rizqi@bki.co.id
Ms.	MARTHA SIREGAR	Staf	Bappenas	+6282364787975	martha.siregar@bappenas.go.id

## Annex 2: Programme

### BLUE SOLUTIONS NATIONAL INCEPTION WORKSHOP

#### DRAFT PROVISIONAL ANNOTATED AGENDA

#### PART 1: PROJECT OBJECTIVES, WORK SCHEDULE, AND ORGANIZATIONAL ARRANGEMENTS (DAY 1 PM)

2:30 – 2:45hr **1.0 Opening of the Workshop**

(15 min.)

A representative from IMO/PEMSEA will open the meeting and provide welcoming remarks.

A representative from BMU/IKI will welcome participants to the meeting.

The National Focal Point for the project preparation phase will co-chair the meeting along with a representative of the IMO/PRF.

The PRF will serve as secretariat for the workshop.

2:45 – 2:55hr **2.0 Introduction of participants**

(10 min.)

Representatives from the participating government agencies, shipping, port and logistics industry, universities, and other stakeholder representatives will be invited to introduce themselves. The Project Team, the national consultant, and other invited resource persons will introduce themselves.

2:55 – 3:05hr **3.0 Inception Workshop Objectives and Project Preparation Schedule**

(5 min.)

The IMO/PRF co-chair will introduce the Blue Solutions regional project, the planning, development and implementation of national GHG pilot projects in participating countries. The chair/co-chair will then review the objectives, expected outputs and schedule for Parts 1 and 2 of the national inception workshop.

(5 min.)

The IKI representative will describe the project appraisal mission process and timeline, with emphasis on required documentation that will need to be submitted for review and approval by BMU/IKI prior to issuance of the full project grant for the regional Blue Solutions project.

3:05 – 3:50hr **4.0 GHG Emissions and the Maritime Sector: National Priorities, Objectives, Challenges and Needs**

(40 min.)

National representatives from lead agencies (transport, environment, shipping, ports, logistics), the national consultant and/or other invited resource persons will share their views on GHG emissions in the maritime sector, including principal sources/operations generating GHG and other pollutive emissions, existing/proposed policies, commitments, programs and projects that are focusing on reducing GHG emissions, perceptions on GHG hotspot ports/port-related activities, and expectations from a national pilot project targeting GHG emission reductions in the maritime sector.

- (5 min.) The co-chair will open the floor for Q&A with country participants and other resource persons to provide further input/reaction to the presentation(s), including objectives and expectations from a national GHG pilot project.
- 3:50 – 4:05hr  
(15 min.) **5.0 Blue Solutions Project Introduction, Overview and Scope**  
The Project Team will introduce the concept, objectives, scope and coverage of a national GHG project, as well as the proposed work program for the planning and preparation of a national GHG project document.
- 4:05 – 4:25hr  
(15 min.) **6.0 Organizational Arrangements**  
The co-chair will introduce proposed organizational arrangements for the planning and development of the national GHG project. The introduction will include information on the proposed representation, roles and responsibilities of:
  - a National Focal Point/national focal agency for the project
  - a multi-sectoral Stakeholder Advisory Group/Technical Working Group
  - a national project consultant
- (10 min.) The chair/co-chair will open the floor for Q&A with country participants and other resource persons on the objectives, scope, coverage and organizational arrangements of the national GHG pilot project.
- 4:25 – 4:35hr  
(10 min.) **7.0 Part 1 Workshop Closing**

**PART 2: PROJECT WORK PROGRAM PLANNING: NATIONAL GHG EMISSIONS PROFILE (MARITIME SECTOR) AND NATIONAL GHG PILOT PROJECT PRIORITIES AND LOCATION (DAY 2)**

- 9:00 – 9:10hr  
(10 min.) **8.0 Part 2 Workshop Objectives**  
The IMO/PRF co-chair will review the provisional agenda, objectives, expected outputs and schedule for Part 2a of the national inception workshop.
- 9:10 – 9:35hr  
(15 min.) **9.0 National Blue Solutions Project Proposal Preparation: Work Plan and Schedule**  
The Project Team will introduce the proposed work plan and schedule for the preparation and endorsement of a national blue solutions project proposal to IMO and PEMSEA, for integration into the regional blue solutions project document.
- (10 min.) The workshop participants will be invited to ask questions and provide input to the work plan and schedule. The workshop will agree on the work plan and schedule, as presented or revised.
- 9.35–10:15hr  
(30 min.) **10.0 National GHG Reduction Pilot Project Preparation: Focal Areas and Strategic Approaches**  
The Project Team will discuss the scope, boundaries and key focal areas and activities for the proposed GHG reduction pilot project in the Philippines. In addition, the Team will introduce strategic approaches to addressing GHG reduction at the ship-port-hinterland transport interface, with particular emphasis on potential applications in the Philippines context.

(10 min.) The workshop participants will be invited to ask questions and comment on the information as presented, and to suggest potential challenges/opportunities for a national GHG reduction pilot project.

10:15-10:40hr **11.0 Identifying and Selecting National GHG Pilot Project Priorities**

(10 min.) The Project Team will review Handout #1 (Identification of Candidate National GHG Reduction Pilot Projects) and Handout #2 (Screening and Selection of National GHG Pilot Projects) with the workshop participants and discuss the process, available assistance, and schedule for identifying and selecting a national GHG project. The specific purpose of the identification and selection process will be to establish a sound rationale and justification for the national pilot project and its expected outcomes.

(15 min.) The workshop participants will be invited to ask questions and comment on the handouts and the proposed process.

10:40 – 11:05hr. **12.0 Implementing Arrangements**

(25 min) The workshop will review the implementing arrangements for preparation of the national GHG pilot project and the national blue solutions project proposal. The workshop will consider working arrangements/TORs for the multi-sectoral Stakeholder Advisory Group, and the national consultant, as well as the participation of other relevant organizations and projects, including the private sector, in project preparation and implementation.

**Part 2b: National GHG Emissions Assessment (DAY 2 PM)**

2:00 – 2:10hr **13.0 Part 2b Workshop Objectives (DAY 2 PM)**

(10 min.) The IMO/PRF co-chair will review the provisional agenda, objectives, expected outputs and schedule for Part 2b of the national inception workshop.

2:10 – 3:40hr **14.0 Preparing a National GHG Emissions Assessment (Maritime Sector)**

(60 min.) The Project Team will introduce proposed criteria, templates, and process for developing a national GHG emissions profile with a particular focus on the maritime sector, for review and discussion by the workshop. The specific purpose of the national GHG emissions profile will be to confirm the baseline conditions at the national and port levels prior to the start-up and implementation of the Blue Solutions pilot project.

(30 min.) Following the presentation, the co-chair will open the floor for Q&A with country participants and other resource persons to gather input/reaction to the presentation, and recommendations for proceeding with the national GHG emissions profile.

3:40 – 4:10hr **15.0 Work Planning and Implementing Arrangements**

(30 min) The workshop will review the work plan and implementing arrangements for planning, preparation, review and approval of the national GHG emissions assessment and work program. The workshop will also consider working arrangements/TORs for the multi-sectoral Stakeholder Advisory Group/Technical Working Group, the national project developer consultant), other key stakeholders and the IMO/PEMSEA Project Team.

4:10 – 4:20hr **16.0 Workshop Closing**

### **Annex 3: Background Document for the IMO-PEMSEA Kick-off meeting on the Proposed "Blue Solutions" Project**

<b>Project Title:</b>	Reducing Maritime Transport Emissions in East and Southeast Asian Countries (Blue Solutions)
<b>Potential Beneficiaries:</b>	China, Cambodia, Indonesia, Malaysia, Philippines, Thailand and Vietnam
<b>Donor (Germany) funding:</b>	Up to 15,000,000 Euros for the total project
<b>Project duration:</b>	2022 to 2026 (5 years)
<b>Implementing Partners:</b>	IMO and PEMSEA

#### **Background**

Maritime transport, including the operation of ships, ports and hinterland transport into and out of ports, is a significant source of greenhouse gas emissions and other pollutants. Around 90% of the global trade is transported by sea and 60% of this pass through the seas and ports of Asia. Globally, East and Southeast Asian countries play significant roles in maritime transport, supporting shipbuilding industries and hosting the world's busiest ports. Based on trends showing increasing trade and therefore increased shipping demand, emissions from maritime transport may significantly increase by 2050. East and Southeast Asian countries are already undertaking actions to address GHG emissions and climate change, and have committed to such efforts in regional and international agreements such as the ASEAN Transport Strategic Plan 2018-2025, PEMSEA's Sustainable Development Strategy for the Seas of East Asia, IMO regulations on ship energy efficiency, the initial IMO GHG Strategy, IMO Resolution on Cooperation between Shipping and Port Sectors on GHG emissions, and the UN SDGs. It is also understood by all that addressing GHG emissions from ports and shipping requires legal and policy developments at national level, uptake of new and emerging energy efficiency technologies, use of alternate fuels and most importantly capacity building and knowledge partnerships to enable the countries to take the foreseen transition to decarbonization.

#### **Short description of the Proposed Project**

Through this proposed project, to be funded by Germany to the tune of approximately 15 million Euros, IMO and PEMSEA will aim to assist East and Southeast Asian countries through technical assistance and cooperation, as these countries aim to transform their maritime transport sector to a low-carbon future. Actions towards this will include assistance with assessment of the emission/energy efficiency baselines, development of national roadmaps and pilot trials of potential technology solutions and optimized processes for interfacing of shipping to ports and to hinterland transport; all with the focus on reducing greenhouse gases and other pollutant emissions from ships, in ports, and from the linked hinterland transport. All activities will be coupled with capacity building and knowledge exchange initiatives.

It is proposed that China, Indonesia, Malaysia, the Philippines, Thailand and Vietnam can be considered as beneficiary focus countries, provided these countries support the project concept, participate and contribute to the development of a detailed project document and identification of pilot demonstration projects and

provide official commitment to the deliverables identified in the detailed project document. Cambodia is considered as a potential participating country in particular for the baseline assessments.

Due to their pioneering role in ship building, significant expertise and knowledge in efficient port and logistic operations as well as their lead in developing innovative technical solutions for maritime sector, Japan, Singapore and the Republic of Korea will be invited to serve as knowledge and partner countries, should there be an interest from these countries to get involved.

The project during its preparation phase, is also expected to identify the key national stakeholders who will be participating and supporting the pilot demonstration projects and these would, inter alia, include the national focal ministry/department, other government organs, ports, shipping and hinterland transport industry, technology providers and financial institutions etc.

The main benefit to the participating countries would, inter alia, include:

- Synergic collaboration among the countries in the region and linkages to other ongoing and future initiatives, such as the Global Maritime Technology Centre Network Project, the GreenVoyage2050 project, GHG SMART project, NextGEN and FINSMART etc. This will create long term benefits for the maritime decarbonization in the region.
- Increased human and institutional capacities of the national stakeholders via engagement in project activities, pilot project implementation and sharing of the knowledge created as a result of the project.
- Developed emissions baselines and decarbonization roadmaps via preparatory studies as well as project activities.
- Identified potential energy efficiency and GHG reduction measures / pilot projects (Blue Solutions).
- Pilot demonstration of the chosen potential solutions (measures /projects) in conformity with national priorities.
- Catalyzed further investments for the scaling up of proven decarbonization solutions.

### **Multiplier effect**

The program has significant potential to scale up and ensure multiplier effects. Collective project results in the efficiency and affordability of low-carbon solutions in the maritime transport will strengthen national and regional climate initiatives, action plans and the sustainability of transport strategies. Project findings from pilot demonstrations can be used by the public and private sector to realize energy efficiency and GHG emission reductions in more ports and locations in the country, around the region and beyond. By closely interlinking the project with international organizations, industry, regional networks and scientific

institutions in assessing baselines and developing and evaluating pilot projects on energy efficiency, processes and technologies, important stakeholders can be reached to further disseminate and develop new findings. Qualified trainers with new training content to be developed by the project will provide comprehensive capacity building support for the region and support the exchange of knowledge with educational institutions, ministries and industry. Last but not least, the outcomes of the project will support the implementation of the IMO GHG Strategy that all the focus countries are committed to.

## **Preparation phase (2021)**

The implementing partner consortium (IMO and PEMSEA) proposes to conduct preparation phase from July to October 2021 and prepare a fully developed and substantial project document together with its country partners. The project objectives will be achieved in accordance with national and regional initiatives and strategies as well as the priorities of the countries and network partners. For this purpose, planning and consultation workshops will be conducted in each country, involving national and local stakeholders from the public and private sector, interviews with shipping, port and land transport authorities and experts, to identify interest and objectives of regional and national work programmes and pilot projects. The end result of the preparatory phase will be a fully-fledged project document that will identify key national components including identification of pilot demonstration projects and the stakeholders to be involved. The project document before final submission to the Donor will need to be verified and vetted by each participating country, along with the commitment letter from the Government to the deliverables of the project at national level.

The project preparatory phase is funded by Germany that will support a team of international and national consultants/experts and subject matter experts who will work with the key stakeholders and partners to develop the detailed project document inclusive of its national components in close consultation with the participating countries.

---