

N P E M S E A

Charting a New Decade of Healthy Oceans, People and Economies

1-2 DECEMBER 2021 • Hosted by the Royal Government of Cambodia

Collab 4

IKI/IMO Blue Solutions for Reducing Maritime Transport Greenhouse Gas (GHG) Emissions through Increased Energy Efficiency of Ship and Port Activities in East Asia

Project Preparation Kick-Off Meeting

28 June 2021, 2:30 PM - 4:00 PM (GMT+7) Online via Zoom

ORGANIZERS:



International Maritime Organization (IMO)



Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)



Collab 4: Project Preparation Kick-Off Meeting for the IKI/IMO Blue Solutions Project

28 June 2021, 2:30 PM – 4:00 PM (GMT+7) Online via Zoom

PROCEEDINGS

1. Introduction

Maritime transport and its associated activities, including the operation of ships, ports, cargo handling equipment, and trucks are a significant source of greenhouse gases (GHGs) and other pollutants emissions. Around 90% of the global trade is transported by sea and 60% of this trade volume passes through the seas and ports of Asia, with the South China Sea carrying an estimated one-third of global shipping. Heavy cargo vehicles account for less than 10% of all road vehicles but contribute more than 50% of the transport sector's CO_2 emissions in Asia. East and Southeast Asian countries play globally significant roles in maritime transport, supporting shipbuilding industries, containing the world's busiest ports, and having high marine freight import and export levels. Based on trends showing increasing trade and therefore increased shipping demand, emissions from maritime transport (CH₄, CO, CO₂, NO_x) may increase three to four-fold by 2050.

Countries in the East Asian region are already undertaking climate change mitigation actions, and have committed to such efforts in regional and international programs and agreements such as the ASEAN Transport Strategic Plan 2018-2025, PEMSEA's Sustainable Development Strategy for the Seas of East Asia (SDS-SEA), the Initial IMO GHG Strategy, the IMO Resolution on Cooperation between Shipping and Port Sectors on GHG emissions, as well as the UN SDGs, specifically SDG 3 on Good Health and Well-Being, SDG 7 on Affordable and Clean Energy, SDG 11 on Sustainable Cities and Communities, SDG 13 on Climate Action, SDG 14 Life Below Water, and SDG 17 on Partnerships for the Goals.

As countries continue to shift their maritime transport sector towards a low-carbon future, the International Climate Initiative (IKI) in collaboration with the International Maritime Organization (IMO) and Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) propose to assist them through the preparation of a five-year, EUR 15 million project entitled 'Reducing Maritime Transport Emissions in East and Southeast Asian Countries' (Blue Solutions).

This report provides the highlights of the kick-off meeting which was organized with the following objectives:

• to introduce the proposed project's objectives, components, and project preparation team to the relevant stakeholders in the region;

- to lay the groundwork for the succeeding bilateral meetings with countries that will take place in the months of July-August 2021;
- to seek feedback, respond to questions, and generate expressions of support and interest for the project.

The full program is shown in Annex 1.

Just over 100 individuals participated in the event, coming from 10 countries (Cambodia, China, Indonesia, Japan, Malaysia, Philippines, RO Korea, Singapore, Thailand, Viet Nam) as well as a project team from IMO, PEMSEA, and representatives from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). The full list of participants is included in Annex 2.

2. Welcome Remarks and Opening Address

2.1 Dr. Jose Matheickal, Chief of the Department of Partnerships and Projects of IMO, opened the meeting and welcomed representatives from the national government agencies handling maritime transport, shipping, ocean fisheries, and environment and natural resources, international development partners, the academia, and other sectors. He also thanked the government of Germany for its support of the project.

Dr. Matheickal then introduced IMO as the main implementing partner of the Blue Solutions Project. The IMO is a specialized agency of the UN that has 174 Member States whose mandate is to develop and maintain a comprehensive regulatory framework to ensure safe, secure, and efficient shipping on cleaner oceans. The IMO has been working on the adoption of greenhouse gas-related policy measures for many years. For example, it facilitated the adoption of MARPOL Annex VI, the Initial IMO GHG Reduction Strategy in 2018, a Port Resolution in 2019, and other mandatory measures to reduce shipping carbon intensity and a ship rating system in 2021. He emphasized that tackling the decarbonization issue requires a long-term commitment and that countries should work together to ensure that 'no country is left behind'. Among others, IMO has been specializing in technical cooperation and capacity building initiatives and is undertaking a number of ongoing GHG projects, such as IMO Global TC Programme on Energy Efficiency, the Global Maritime Technology Cooperation Centres (MTCCs), Global Industry Alliance to Support Low Carbon Shipping, GreenVoyage-2050, GloFouling Partnerships, Next Green and Efficient Navigation Network (NextGen), Financing Sustainable Maritime Transport (FinSmart), Maritime Innovation Forum (MIF) and the GHG-SMART Programme for SIDS and LDCs. The Blue Solutions project will be an opportunity for countries to connect to these GHG emission reduction projects.

2.2 Dr. Sabine Lattemann, Senior Policy Advisor on Shipping at the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), welcomed delegates on behalf of the Government of Germany. She said that Germany is fully committed to secure the target of limiting global warming to 1.5C. In the past week, Germany passed a law aiming for carbon neutrality by 2045. The Blue Solution's project is part of the government's commitment to work together with other countries through technical cooperation and development assistance.

She then introduced the International Climate Initiative (IKI), which operates within the framework of the UNFCCC, and the CBD. IKI has supported more than 750 climate and biodiversity projects in over 60 countries worth EUR 4.5 billion.

She indicated that synthetic fuels, such as green hydrogen and ammonia, which can be produced through processes powered by renewable energy, will be the key to fully decarbonize maritime shipping in the future. However, as synthetic fuel is still limited in supply and more costly at this stage, further improvement of the energy efficiency of maritime shipping is considered to be the first step. Moreover, a strong global regulatory framework is required to provide clear signals and pathways to shipping companies, fuel producers, and other related stakeholders regarding the transition.

2.3 The next speaker was Aimee T. Gonzales, Executive Director, PEMSEA, who introduced Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) as a regional organization whose mission is to foster healthy and resilient coasts, oceans, peoples, and economies through integrated management solutions and strategic projects. Eleven country partners are working on a shared regional strategy called the 'Sustainable Development Strategy for the Seas of East Asia' which includes priority programs on pollution reduction and climate change mitigation and adaptation which are both relevant to the Blue Solutions project. PEMSEA is pleased to be IMO's partner in developing this full project proposal on Blue Solutions. She also introduced the PEMSEA Network of Learning Centers (PNLC), which has been working closely with the local and national governments to help build capacity and adapt tools and technologies appropriate to local circumstances. Providing low carbon options in the maritime transport sector is a relatively new topic, particularly for many of the ASEAN countries, so she welcomed and reaffirmed the need for technical capacity building and knowledge exchange that the Blue Solutions project will bring to the region.

Ms. Gonzales concluded her speech by introducing the East Asian Seas (EAS) Congress 2021, with the theme of "Charting a New Decade of Healthy Oceans, People and Economies", which is hosted by the Royal Government of Cambodia and will take place on 1-2 December 2021. She suggested that the organization of a regional meeting around the Congress to present the final full project proposal for endorsement and/or approval to senior-level officials be considered as a key milestone of the project preparation phase.

3.0 Project Overview

Ms. Nadine Bresemann, Head of Maritime Transport, PEMSEA, then introduced the project concept. She firstly welcomed the participants and thanked the BMU and IKI for supporting the project idea and IMO for very good cooperation over the last few months. She explained that the members of the Regional Port Training Network (RTN) initially developed the idea for the project proposal to reduce emissions in maritime transport. The scope of the project proposal, which aims to decarbonize maritime transport and includes ships, ports, and hinterland transport, was further developed by PEMSEA and IMO. Four work packages will be further elaborated upon in the coming months with the countries, namely:

- a) Assessment of the current GHG status and future scenarios
- b) Development of strategies, Action Plans, and Roadmaps
- c) Demonstration of Selected Decarbonization Pilot Projects
- d) Capacity Building, Knowledge Creation and Dissemination

She emphasized that the development of innovative demonstration pilots is the core element of the project.

Ms. Bresemann stated that representatives from China, Indonesia, Malaysia, Philippines, Thailand, and Viet Nam have announced interest in joining the project and are considered focal countries, while Cambodia will join as a collaborating country and will undertake activities a, b and d. Initial talks have also been held with RO Korea, Japan, and Singapore to support the regional discussions, define decarbonization instruments, and to share knowledge. Should the project document be approved, a funding volume of EUR 15 000 000 can be expected for the described measures. IMO and PEMSEA act as implementation partners.

She then presented the project milestones within the five-year timeframe and explained that the selected pilot demonstrations will be implemented as soon as possible to discuss their impact in the regional project meetings. Further regional meetings and national working meetings are planned during the 6-month preparatory phase. The countries are therefore requested to nominate national contact points for the preparatory phase that can discuss intermodal approaches between ships, ports, and hinterland transport. In addition, countries are also requested to assist in identifying national project preparation consultants. Details on the consultant positions are posted on <u>PEMSEA Careers</u> page for the six focus countries. These consultants are expected to be technically proficient and will draft the national pilot demonstration proposal, describe the country emission gaps and attend project team meetings as well as assist in organizing national and actively participate in the regional consultation meetings.

Furthermore, countries are requested to support the project design by nominating a national stakeholder or technical team and to provide emission data, information, and possible co-financing options for pilot projects. Ms. Bresemann also encouraged women to apply for the national project preparation consultancy post and actively participate in the national and regional consultations. She reiterated the proposal to present the full project proposal and obtain national letters of commitment to the project during the EAS Congress 2021 on 1-2 December 2021, in Cambodia.

Ms. Bresemann then thanked the partners and networks for their support in the past months and during the concept development. She emphasized the benefits resulting from the project for the partner countries in terms of fulfilling its commitment to international agreements on climate change and marine pollution as well as creating a cleaner, better and cost-efficient maritime transport sector in the region. Collaboration with network partners, organizations, the private sector, and banks will be critical to the success of the project. She also thanked the BMU, Dr. Sabine Lattemann for the opportunity to initiate this project. She believed that the funding of the project, the cooperation with the highly committed IMO team will contribute a big step to the decarbonization of maritime transport.

Dr. Jose Matheickal thanked previous presenters and opened the floor for comments and feedback. He pointed out that the Blue Solutions project is a great opportunity for countries to innovate and demonstrate innovative approaches and solutions on intermodal transport. He emphasized that the project will not be designed by IMO nor PEMSEA, but by each country with IMO and PEMSEA facilitating and supporting the project preparation process.

4.0 Messages and Response from Countries

4.1 Mr. Watchara Chiemanukulkit, Maritime Attaché at Royal Thai Embassy, London, expressed gratitude to the German government, PEMSEA, and IMO for organizing the kick-off meeting. He said that Thailand is looking forward to further discussion at a bilateral meeting. He trusts the project will enhance the capacity of the region to achieve the common goal of a greener planet.

- **4.2 Mr. Kanagalingam Selvarasah, Maritime Attaché at Ministry of Transport Malaysia**, thanked IMO, PEMSEA, and the German Government for the project. He noted that it was a natural extension of other projects aimed at improving shipping in the region. Malaysia is already a partner in other IMO GHG projects such as Green Voyage.
- **4.3** Mr. Lollan Panjaitan, Transportation Attaché at Embassy of the Republic of Indonesia to the United Kingdom, Ireland, and IMO London, also thanked the IMO, PEMSEA, and the German Government for the introduction to the project. He noted many Indonesian stakeholders from the relevant agencies were present in the meeting and looked forward to bilateral discussions.
- **4.4 Mr. Long Rithirak, Deputy General Director of the Ministry of Environment of Cambodia**, expressed appreciation to the IMO, PEMSEA, and the German Government for organizing the meeting and facilitating the project development. Cambodia has already taken actions to help mitigate climate change but welcomes the technical assistance project. Cambodia's 442 km coastline is already covered by integrated coastal management, with the ocean economy making up 16% of GDP and employing 3.2 million people. As of 2015 data, ports and shipping provide 52% of the country's revenues. Sihanoukville Autonomous Port is an important trading port within Cambodia and its neighboring countries. In addition, Cambodia is the host of the EAS Congress 2021 and looks forward to hosting the regional meeting to present the final proposal to heads of delegation to the EAS Congress 2021.
- **4.5** Ms. Tran Thi Tuyet Mai Anh from VINAMARINE of Vietnam joined the chorus of thanks to IMO, PEMSEA, and the Government of Germany for the project. She looks forward to bilateral country discussions and country workshops to discuss the project's requirements.
- **4.6 Mr. Albert Magalang, Chief of the Climate Change Division (CCD), Environmental Management Bureau of the Department of Environment and Natural Resources, Philippines**, expressed thanks to the IMO, PEMSEA, and the German Government. He informed the meeting that the Philippines has been part of the brainstorming sessions on the development of the concept for this and other similar projects to contribute to the realization of climate change commitments (NDCs). He is pleased that the project has finally taken off. He looks forward to the country discussions with other relevant stakeholders especially in discussing innovative pilot proposals and potential reduction measures. He noted a lack of current reliable emissions data, and view this project as an opportunity to work towards a comprehensive assessment and an emissions baseline.
- 4.7 Mr. Wei Ruan, Head of Maritime Technology Cooperation Centre (MTCC)-Asia and the Shanghai Maritime University, China, indicated that their center has long been involved in addressing climate change through energy efficiency in the maritime transport sector, capacity building for countries to comply with IMO regulations on shipping, etc. He expressed the willingness of MTCC-Asia to assist with the project, noting its knowledge resources and experience, and its links to the global MTCC network, and highlighted the need for tailor-made technology, and specific legislation on the matter. He invited meeting participants to attend the International Conference-Exhibition on Maritime Technology for Climate Mitigation event on July 11, 2021. The event will be attended by high-level maritime officials, maritime specialists, and shipping company representatives from maritime countries in Asia and 20 GHG technology providers.

5.0 Closing Messages and Next Steps

Ms. Gyorgi Gurban, Head of the Projects Implementation, Department of Partnerships and Project, International Maritime Organization (IMO) added that given the limited time to develop a full-fledged project by the end of the year, IMO and PEMSEA will start to reach out to participating countries in the days following the event.

Dr. Jose Matheickal noted the importance of having committed individuals who can help design the pilot project for each country via the national focal point and a national project preparation specialist. The national focal points will be supported by PEMSEA, who will coordinate the project preparation in the region. They will further be supported by country project preparation consultants hired by PEMSEA, who should be in place soon. Countries are requested to start consideration for the upcoming bilateral meetings and workshops, as they will help determine the needs of each country, and thus shape pilot projects.

Ms. Aimee Gonzales, on behalf of the project team of IMO and PEMSEA, expressed thanks to all participants, the project preparation team, and the national development partner IKI for the successful kick-off meeting. PEMSEA will communicate with the IMO and PEMSEA country contact points to ensure the participating countries are kept informed on the project preparation plans. She expressed appreciation for the expressions of support and interest shown by many countries and hoped to follow up on these commitments during the national bilateral consultation. She indicated that this is only the start of the preparation phase, and reiterated that the key target of this project will be to have a full project developed by the end of the year that will be endorsed and approved by key countries.

PEMSEA will hire country project preparation consultants for China, Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam for the development of the country components.

Bilateral meetings and workshops will be organized with participating countries over the upcoming months.

Powerpoint presentations can be found <u>here</u>.

A recording of the event can be accessed through <u>Youtube</u>.



Regional IKI Project Kick Off on Blue Solutions

"Reducing Maritime Transport Emissions in East and Southeast Asian Countries"

Virtual Monday, 28 June 2021 15.30 – 17:00 (Philippines local time - GMT +8)

(08.30 – 10:00 (UK local time - BST)) (09.30 – 11:00 (Germany local time - CEST))

15:30 – 16:10 Welcome Remarks and Opening Address

Opening Message from IMO

Opening Message from IKI/BMU

Opening Message from PEMSEA

16:10 - 16:40 Project Overview

Team Introduction

Work Packages

Timeline and Next Steps

- 16:40 16:55 Key Message from Expert Countries/Strategic Partners
- 16:55 17:00 Closure of the meeting

Please note the times above are in Philippines local time.

Annex 2: List of Participants

Country	Surname	First Name	Position or Job Title	Organization/Office
Cambodia	Long	Rithirak	Deputy Director General	Ministry of Environment
Cambodia	Mak	Sideth	Director General	General Department of Waterway-Maritime Transport and Port
Cambodia	Ngoun	Dawin	Official	General Department of Waterway-Maritime Transport and Port
Cambodia	Suon	Vansar	Director	General Department of Waterway-Maritime Transport and Port
China	Fang	Qinhua	Professor	Coastal and Ocean Management Institute, Xiamen University
China	Ruan	Wei	Director&Head	Maritime Technology Cooperation Center for Asia (MTCC-Asia)
China	Wang	Shouqiang	Program Director	China-PEMSEA Center
China	Wang	Tingling	Deputy Head	Maritime Technology Cooperation Center for Asia (MTCC-Asia)
Germany	Lattemann	Sabine	Senior Policy Officer	German Ministry for the Environment
Germany	Molt	Christiane	Team Urban Development, Infrastructure, Mobility IKI Secretariat	Die Zukunft - Umwelt - Gesellschaft (ZUG) gGmbH
Indonesia	Ardhiyanto	Wahyu	Head of Section for Marine Pollution	Directorate General of Sea Transportation
Indonesia	Dina Kartika	Dina	Transport policy analyst	Ministry of transport, center for sustainable transport management
Indonesia	Irfansyah	Sigit	Head of Center for Sustainable Transportation Management	Ministry of Transport, Republic of Indonesia
Indonesia	Isdahartati	Isdahartati	Reasercher	PKSPL IPB University
Indonesia	Malisan	Johny	Researcher	Research and Development Agency - Ministry of Transportation of Indonesia
Indonesia	Mirajaya	Barkah Bayu	Head of International Cooperation and Treaty, Legal and International Cooperation Division	Directorate General of Sea Transportation, Ministry of Transportation, Republic of Indonesia
Indonesia	Mulyo	Tedi Bagus Prasetyo	Programme and Cooperation Officer	Ministry of Environment and Forestry Indonesia
Indonesia	Panjaitan	Lollan	Transportation Attache	Indonesian Embassy
Indonesia	Rarasanti	Galuh	Second Secretary	Indonesian Embassy in London
Indonesia	Ridha	Dida Migfar	Director, Marine and Coastal Pollution and Degradation Control	Ministry of Environment and Forestry Indonesia
Indonesia	Silaksanti	Danawiryya	Environmental Impact Control Senior Officer	Center for Sustainable Transportation Management

Country	Surname	First Name	Position or Job Title	Organization/Office
			International	Directorate General of
Indonesia	Sitinjak	Murni	Cooperation Officer	Sea Transportation
			Alternate Permanent	
			Representative of Japan	
Japan	Nakao	Kazuya	to the IMO	The Embassy of Japan
Korea	Ryoo	Jaehyung G	Minister Councellor	Embassy of the Republic of Korea in London
Malaysia	Hassan	Abdul Wahab	Advisor, Ports & Logistics	Work From Home if necessary.
Malaysia	Lai	Fui Nar	General Manager	Sabah Ports Sdn Bhd
Malaysia	Lim	Xin Kin	Intern	PEMSEA
Malaysia	Osman	Mohd Tarmizi	Marine Officer	Marine Department of Malaysia
Malaysia	T.Selvarasah	Kanagalingam	Maritime Attache II	Ministry of Transport Malaysia / High Commission of Malaysia
Malaysia	Yahya	Mohamad Amir Fikri	Marine Officer	Marine Department of Malaysia
Philippines	Abad	Rolando Jr.	Research Specialist	Department of Environment and Natural Resources, Climate Change Service
Philippines	Aguas	Angievyn	Environmental Specialist B	Philippine Ports Auhtority
Philippines	Arididon	Јау	Monitoring Officer	Biodiversity Management Bureau - Coastal Management Division
Philippines	Bell	Thomas	Project Manager	PEMSEA
Philippines	Bravante	Conrado	Project Evaluation Officer V	Department of Environment and Natural Resources
Philippines	Bresemann	Nadine	Head of Maritime Transport	PEMSEA
Philippines	Buday	Raymund	Safety Specialist	Cebu Port Authority
Philippines	Cayaban.	Adi	Programme Assistant	PEMSEA
Philippines		Vincent	Environmental Sprcialist	Cebu Port Authority
	Dacaymat Jr.	Arsenio	IT System Administrator	PEMSEA
Philippines	Dadulo	Arvin	Division Manager, PPA Training Institute	Philippine Ports Authority
Philippines	David	Laura	Professor	University of the Philippines Marine Science Institute
Philippines	Dayao	John Patrick	Senior Communications Development Officer	Department of Transportation/International Cooperation Division
Philippines	de Leon-Flores	Jennifer	Sr. EMS	DENR-CCS
Philippines		Maria Asuncion Hiyasmin	Department Manager	Philippine Ports Authority
Philippines	Eleria	Elma	Project Evaluation Officer	Dept of Environment and Natural Resources.
Philippines	Escubio	Edmundo	Engineer II	Environmental Management Bureau

Country	Surname	First Name	Position or Job Title	Organization/Office
Philippines	Felix	Alexander	Supervising Transportation Development Officer	Department of Transportation
Philippines	Ferre	Enrico	Chief Transportation Development Officer	Water Transportation Planning Division , Department of Transportation
Philippines	Gonzales	Aimee	Executive Director	PEMSEA
Philippines	Hernandez	Ramon	Director II, Shipyards Regulation Service/Officer-in Charge, Maritime Safety Service	Maritime Industry Authority
Philippines	Honrado	Judy	Supervising Maritime Industry Development Specialist	Maritime Industry Authority (MARINA)
Philippines	Jara	Precila	OIC-Director	MARINA/Overseas Shipping Service
Philippines	Lorenz	Juergen	Co-Founder PSFEI (Partnership for Sustainable Economies)	JLBTC & ENPOWER
Philippines	Magalang	Albert	Chief EMS	Department of Environment and Natural Resources
Philippines	Magbojos	Gerico John Vincent	Supervising MIDS	Maritime Industry Authority/Overseas Shipping Service
Philippines	Mamisao	Maria Teresa	Division Chief	Maritime Industry Authority
Philippines	Nievales	Marie Frances	Associate Professor	University of the Philippines Visayas
Philippines	Olayres	Melanie	Administrative Assistant	IMO Regional Presence for Technical Cooperation in East Asia
Philippines	Padayao	Daisy	Country Project Manager, Philippines, Lao and Cambodia	PEMSEA
Philippines	Percil	Queenie Rose	Data Encoder IV	Philippine Ports Authority/Port Operations and Services Department
Philippines	Quebec	Anthony Harbie	Senior CDO	Department of Transportation Philippines
Philippines	Rola	Majorie	Chairperson	Chartered Institute of Logistics and Transport
Philippines	Ross	Stephen Adrian	Co-founder	Partnerships for Sustainable Economies Inc.
Philippines	Sabalo	Marvin	Communication Development Officer II	Department of Transportation / Water Planning Division
Philippines	Santiago	Carl Louie	Science Research Specialist II	DENR Climate Change Service
Philippines	Segui	Ma. Alma	DMO III	DENR-FASPS
Philippines	Silva	Liz	Senior Environmental Management Specialist	Climate Change Service - Department of Environment and Natural Resources
Philippines	Sprong	Marco	GHG emission specialist	Freelance consultant
Philippines	Tayabas	Albert	Environmental Specialist	Philippine Ports Authority
Philippines	Tupas	Jhorace	Senior Ecosystems Management Specialist	DENR BMB Coastal and Marine Division

Country	Surname	First Name	Position or Job Title	Organization/Office
Philippines	Uranza	Josephine Marie	Regional Coordinator	IMO Regional Presence Office for East Asia
Philippines	Villamor-Dnipol	Nannette	Deputy Administrator for Operations	Maritime Industry Authority
Singapore	Lee	Nai Ming	Project Manager	IMO-IPIECA GISEA
Singapore	Mah	Amanda	Manager	MPA/Singapore
Singapore	Oommen	Ninan Biju	Sr Port & Maritime Transport Specialist	WB
Thailand	Urairat	Vansa	Assistant Director, Occupational Safety, Health and Environmental Division	Port Authority of Thailand
Thailand	Anutaliya	Arachaporn	Researcher	The Institute of Marine Science, Burapha University
Thailand	Boonchum	Werapong	Environmental Officer	Environment Group, Marine Safety and Environment Bureau, Marine Department
Thailand	Chamsub	Ruttikarn	Scientist	Port Authority of Thailand
Thailand	Chiemanukulkit	Watchara	Maritime Attache/ Alternate Permanent Representative of Thailand to the IMO	Royal Thai Embassy
Thailand	Deeroop	Mayuree	Technical Officer	Port Authority of Thailand
Thailand	Kongjandtre	Narinratana	Assistant Professor Dr.	Burapha University
Thailand	Petchmunee	Tanapit	Transport Technical Officer	International Affairs Division, Planning Bureau, Marine Department
Thailand	Phisaisawat	Suphattra	Technical Officer (Environment)	Port Authority of Thailand
Thailand	Senanan	Wansuk	Assistant Professor	Faculty of Science, Burapha University
Thailand	Sowajassatakul	Suparat	Asistant Chief Environmental Affairs Section	Port Authority of Thailand
UK	Bazari	Zabi	IMO GHG Lead Consultant	Energy and Emissions Solutions, London, UK
UK	Dispert	Astrid	Project Technical Manager	International Maritime Organization
UK	Gurban	Gyorgyi	Head of Projects Implementation, Department of Partnerships and Projects	International Maritime Organization
UK	Jaeggi	Ava	Project Assistant	International Maritime Organization
UK	Khodjet El Khil	Lilia	Technical Project Manager	International Maritime Organization
UK	Marshall	Brendan	Senior Administrative Assistant, DPP	International Maritime Organization
υк	Matheickal	Jose	Chief, Department of Partnerships and Projects	International Maritime Organization
UK	Rhodes	Anton	Project Manager	International Maritime Organization

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Country	Surname	First Name	Position or Job Title	Organization/Office
υк	Sarria	Elene	Principal Programme Assistant	International Maritime Organization
Vietnam	Luu	Viet Hung	Rector	Maritime College No. 1 - Vietnam
Vietnam	Nguyen	Hang	Deputy Director	Department of Science, Technology and International Cooperation, Vietnam Administration of Seas and Islands
Vietnam	Tran	Thi Tuyet Mai Anh	Director of International Cooperation Department	Vietnam Maritime Administration
Vietnam	Vu	Ноа	Science - Technology and Environment Department	Vietnam Maritime Administration
Details inc		1100	Department	
	Ajeng	Monica		РҒККІ
		Stephanus		РМКК
	Kurniawan	Ari		
	Suttipotipong	Jittima		
		Andung		
				FNLAI
				Safety and Environmental Management Division