UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Ad Hoc Expert Meeting on

Assessing Port Performance

Geneva, Palais des nations, 12 December 2012

Main Outcomes and Summary of Discussions

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UNCTAD/WEB/DTL/TLB/2013/1

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UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

UNCTAD

ROOM XXVI
Palais des Nations, Geneva

12 DECEMBER 2012
10.00 – 18.00

Assessing Port Performance

More than 80 per cent of merchandise trade by volume is seaborne, and the share is even higher for most developing countries. In many cases, over 95 per cent of a developing country's international trade passes through one main seaport. Increased port performance can lead to lower transport costs and help boost a country's competitiveness.

There is presently no global comparison of port performance allowing ports and their clients to benchmark against other ports. Identifying standardized indicators that would allow stakeholders to gain a better understand of their ports' efficiency could be an important first step towards encouraging further port reforms, leading to improved port efficiency and country competitiveness.

The purpose of this meeting is to discuss possible ways to measure and compare the performance of seaports. Experts will also analyse whether and how indicators could be developed that would help increase transparency. Experts from governments and port authorities, as well as academics and stakeholders from the private sector, will have an opportunity to share information on recent and ongoing research in this area, and to discuss potential future collaborations, including UNCTAD's role in the process.

FOR FURTHER INFORMATION, PLEASE CONTACT:
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UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Ad Hoc Experts Meeting on Assessing Port Performance

Geneva, 12 December 2012

Palais des Nations - Room XXVI - Geneva, Switzerland

PROGRAMME TIMETABLE

MORNING SESSION: An industry perspective	
10:00-10:10	**Opening session:** Welcoming remarks from Ms. Anne Miroux – Director DTL, UNCTAD
10:10-10:15	**Chairperson's welcoming remarks** Prof. Mary R. Brooks, William A. Black Chair of Commerce, Dalhousie University, Canada
10:15-10:25	**Introduction to the main theme of the meeting** Mr. Vincent Valentine, Officer-in-Charge, Transport Section, Trade Logistics Branch UNCTAD
10:25-10:35	**Introduction to UNCTAD's TrainForTrade Port Training Programme** Mr. Mark Assaf, Officer-in-Charge, Human Resources Development Section /TrainForTrade, UNCTAD
10:35-10:45	Mr. Yossi Bassan, Chairman of the Committee on Port Operations and Logistics, **International Association of Port and Harbors** (IAPH)
10:45-11:00	Ms. Martina Fontanet, PPRISM Project, **European Sea Ports Organisation** (ESPO)
11:00-11:15	Mr. Samuel Ntow-Kummi, Chairman of the Maritime Security, Safety and Operations Technical Committee, **The Port Management Association of West and Central Africa** (PMAWCA)
11:15-11:30	Mr Mekeonnen Abera Tadelle, Director General of **Ethiopian Maritime Affairs Authority and** Mr. Berhanu Amaslu Deress, Transport Logistics Coordination Directorate Director, **Ministry of Transport**, Ethiopia
11:30-11:45	Ms. Ana M. Martín Soberón, R&D Project Manager, Port Development Department, **Fundación Valenciaport**
11:45-12:00	Mr. Hebel Mwasenga, Principal Planning Officer,**Tanzania Ports Authority**
12:00-12:15	Mr. Joseph Hiney, Port Performance in Ireland, **Dublin City University**

12:15-12:30	**Introduction to UNCTAD's Liner Shipping Connectivity Index/Matrix** Mr. Jan Hoffmann, Chief Trade Facilitation Section, UNCTAD
12:30-13:00	Questions and Answers

13:00-15:00	**LUNCH**

AFTERNOON SESSION: A RESEARCH PERSPECTIVE	
15:00-15:15	**Overview of Port Efficiency Studies** Dr Dong-Wook Song, Reader in Logistics, Logistics Research Centre, Heriot-Watt University, Edinburgh, United Kingdom
15:15-15:30	**Principal Component Analysis as a Tool to Rank Ports,** Mr. Joost Hintjens, University of Antwerp
15:30-15:45	**The Role of External Factors Versus Managerial Ability in Determining Relative Efficiency,** Prof Angela Stefania Bergantino, Associate Professor, University of Bari, Italy
15:45-16:00	**Measuring Port Efficiency -** Prof. Kevin Cullinane, Director, Transport Research Institute, Edinburgh Napier University, United Kingdom
16:00-16:30	**Measuring Effectiveness in Port Service Delivery -** Prof. Mary R. Brooks, William A. Black Chair of Commerce, Dalhousie University, Canada
16:30-17:00	Questions and Answers
17:00-18:00	Closing Debate, Comments and the Way Forward
18:00	**END OF THE MEETING**
18:00-20:00	**COCKTAIL RECEPTION**

OPENING STATEMENT BY MS. ANNE MIROUX,

DIRECTOR, DIVISION ON TECHNOLOGY AND LOGISTICS OF UNCTAD

(Wednesday, 12 December 2012)

Distinguished Participants, Ladies and Gentlemen:

It is my pleasure to welcome you today to our Ad hoc Experts Meeting on Assessing Port Performance.

As some of you may know, the aim of an ad hoc experts meeting is to help the United Nations Secretariat in identifying issues of most concern to its Member States and where possible find solutions through the use of best practices and consensus building. To this extent, the purpose of this meeting on "Assessing Port Performance" is to explore recent developments made in measuring port performance, before discussing collaborative actions by port associations, individual ports, port users and academia to move matters to the next level.

The subject of port performance is not new to us. Since its inception, almost 50 years ago, UNCTAD has been working in the maritime field. We have a long standing working relationship with the International Association of Ports and Harbors and with several regional port associations. During the last half a century, ports have progressed enormously in terms of the volume of cargo they now handle as world seaborne trade has more than tripled. In terms of capacity building of port personnel, much progress has also been, and is still being achieved by UNCTAD. UNCTAD produces the annual Review of Maritime Transport, a *tour de force* of information and analysis for practitioners and academics. The keen-eyed of you will have already sized the latest version, available in this room.

With around 80% of the volume of international trade passing through ports it is paramount that ports are efficient as they can possible be. For many developing countries the situation is even more important as often there is just one main port which accounts for nearly all the country's international trade. With fewer ports and a greater concentration of imports/exports at one location, port efficiency is fundamental to countries trade competitiveness.

Many countries have established port management structures, which regularly review their progress and set goals. However, there is no global comparison of port performance through which ports could benchmark themselves against other ports or, any compendium of port statistics that may allow port users to make more informed choices.

The challenge is not about collecting data on port performance, as ports are already doing this themselves, the challenge is to gain access to that information and share it for the greater good. We need to learn from each other's experiences and not just learning from last month, last quarter or last year's performance.

Distinguished Participants, Ladies and Gentlemen:

Ports need to work at attracting trade to pass through their ports. Improved understanding of the performance of the port combined with a better understanding of what other ports are doing will help lead to better policy formation and implementation. Communication on performance is an important marketing tool and

a valuable argument to show understanding of the needs of the customer, to both attract new and keep current port users as clients. Ports must work towards making their activities better known and, to this extent, ports should not be afraid to share and learn from others. Transparency in port performance can also be used as a valuable tool to identify priorities, plan for and look for finance for future developments.

I trust we all agree that transparency through better information will help us do better in measuring port performance. Let me encourage you to take good advantage of your participation today to help UNCTAD make significant progress in this direction for the benefit of our Member States.

I wish you successful deliberations in finding a way forward.

I. ORGANIZATION OF THE MEETING

1. The purpose of this Ad Hoc meeting was to review recent initiatives by individual ports, regional port associations, port users and academia in measuring port performance. The meeting also aimed to identifying common standard indicators as well as modalities for future collaboration of ports and academia to measure port performance.

2. The meeting was well attended with around 40 participants from 20 countries representing governments, international organisations, academia and industry. The meeting was divided into a morning session addressing recent developments in port performance from an industry perspective, and an afternoon session looking at techniques used by academics in analysing data on port performance.

3. The meeting was opened by Mrs. Anne Miroux – Director, UNCTAD DTL, and chaired by Professor Mary R. Brooks, Chair of Commerce, Dalhousie University, Canada.

II. SUMMARY OF THE MEETING PROCEEDINGS

Opening Session

4. In her opening remarks, Mrs. Anne Miroux, Director of the Division on Technology and Logistics, underlined the importance of ports for trade and the economy as more than 80 per cent of merchandise trade by volume is seaborne, and the share is even higher for most developing countries. Mrs. Miroux recalled that presently there are no global metrics for the comparison of port performance allowing ports and their clients to benchmark one port against other ports. Identifying standardized indicators that would allow stakeholders to gain better understanding of the efficiency of the ports they use could be an important first step towards encouraging further port reforms, leading to improved port efficiency and country trade competitiveness.

5. The Chair stated the importance of the topic of port performance in helping counties improve their trade. Seamless and secure trade must go hand-in-hand with maximising port performance. For this to happen, work must be done on reducing bureaucracy within ports. The Chair gave a comparison with airports, which have made significant strides in improving their performance through undertaking productivity and customer satisfaction studies.

6. Mr. Vincent Valentine, Officer-In-Charge Transport Section, TLB, DTL, UNCTAD introduced the contextual framework of the meeting including purpose and details of the work previously undertaken by UNCTAD, as well as suggesting a collaborative approach to build upon existing work and networks. Mr. Valentine also explained that donors of UNCTAD Port Training Programme had expressed the need to obtain data on the impact of the programme as well as to work with other ports and/or international/regional organizations in measuring port performance.

7. To conclude the opening session, Mr. Mark Assaf, Officer-In-Charge, Human Resources Development Section/TrainForTrade, KSTCDB, DTL, UNCTAD introduced the Port Training Programme. He explained the challenges faced in showing donors the impact of their work and the need for indicators showing the present and historical evolution of port performance.

The industry perspective

8. The representative of the International Association of Port and Harbors (IAPH) presented a case study of the port of Ashdod, Israel. This case study highlighted the analysis being undertaken in Israeli ports and the compulsory nature of data reporting by the port asset company to the Ministry of Transport. The sharing of data was shown not to be an

issue as the findings of the analysis are published annually for all to examine. The types of analysis being undertaken in Israeli ports include: average productivity per hour of vessel dwell time (total traffic/dwell time of vessel); average productivity per hour per gang (total traffic/working hour/gangs); average productivity per working hour (total traffic/working hours). The speaker stressed the importance of counting boxes rather than TEUs (Twenty-foot Equivalent Units) or FEUs (Forty-foot Equivalent Units) and that of disaggregating the cargoes by type.

9. A study presented by the European Sea Ports Organisation included a set of key port performance indicators related to market trends and structure, socio-economic impact, environment, logistic chain and operations governance. Their purpose is to measure the impact of European seaports activity on society, environment and the economy at large. A first outcome of the project was the development of a European Port Performance Dashboard. Future developments will include PORTOPIA (Ports Observatory for Performance Indicators Analysis), a state-of-the-art, sustainable, self-supporting European Ports Observatory, supplying transparent, useful and robust indicators and the contextual analysis leading to improved resource efficiency, effectiveness and societal support for the European Port System.

10. The next speaker presented a case example illustrating the experience of Ghana with regards to the challenges in measuring port performance. The seaports of Ghana adopted the Uniform System of Port Statistics and Performance Indicators developed by UNCTAD and promoted in some African ports in the 1980s. According to the speaker, the current performance monitoring system concentrating on the ship-to-shore interface should be extended to measure the performance of land-side activities, such as cargo storage, receipt and delivery operations. The ports would also need a system of performance indicators to include: cargo dwell time, utilization of storage space, turnaround time for land transport conveyances, gate clearance time, etc. Another challenge that Ghana's ports face is the difficulty for the port authority to obtain needed data from licensees and concessionaires for measuring port performance. In this context, the speaker highlighted the current regional initiative proposed by the Port Management Association of West and Central Africa (PMAWCA) towards Simplification (i.e. selection of a limited number of metrics) and Harmonisation (i.e. setting of common standards for definition and methodology) to strengthen performance management in member ports.

11. The following speaker cited the example of how export shipments are bagged in the hinterland, transported by truck to arrive break bulk at the seaport before being unloaded and stuffed into container. This means the goods are man-handled twice before export. By loading the container instead of the truck at the origin, double man-handling of the goods is avoided as the container is simply lifted form the truck by crane and transported to the container yard ready for export. For a landlocked country this means lowering expenditure in a foreign currency and where labour costs tend to higher. The speaker suggested indicators on port performance be developed to monitor 1) ship to shore efficiency (e.g., gang productivity by hour/shift/day), 2) on shore efficiency (e.g., waiting times of trucks, truck loading rates, truck discharging rates, stuffing/un-stuffing rates and time taken to provide empty containers for export) and 3) total time (e.g. cargo dwell time in port) and costs (e.g. stevedoring charges, terminal or shore handling charges, storage charges and all direct or indirect costs until cargo leaves the port).

12. A case study looking at measuring capacity in container port terminals was presented by the speaker from the Fundacion Valencia Port on the methodology developed to assess capacity storage in the port of Valencia, Spain. The study examined the capacity processes within the port from ship-to-shore, transfer, storage to the delivery/receipt of the goods at the port gate. The model presented included berth capacity and storage capacity calculations with conversion factors to allow for the difference in the storage and handling units (i.e. containers versus TEUs). Berth capacity is intrinsically linked to the service given through the relative waiting time and the annual average berth productivity. The yard storage

capacity depends on yard handling equipment and on the dwell time. The model allows for ports to better plan investment choices and to maximise operational efficiency. A more detailed report is available from the Fundacion Valenciaport.

13. The speaker from Tanzania reiterated the importance of developing port performance indicators as tools to help take the right decisions at the right time to improve services and decide on investments needed. The Port of Dar es Salaam (DSM) has developed Operational and Financial indicators. The operational performance indicators are directly related to port activities and facilities and categorized into: Service, Output (Production), Utilization and Productivity. The speaker emphasized that if data on port performance indicators should be collected on a global scale, these should be useful, comparable and easy to gather and process. It was proposed that such indicators should include berth output, ship output, ship productivity, quay crane productivity, ship turnaround time, storage utilization, equipment utilization, berth occupancy and cost per ton/TEU[1]. Proper and regular use of these indicators would largely help terminal or port operators to maintain and improve operational as well as financial performance and meet the service demands of customers. The speaker concluded by stating that DSM port intends to use more performance indicators to compare itself with other ports and UNCTAD's initiatives could help in this activity.

14. The last presentation of the morning by Jan Hoffmann, Chief, Trade Facilitation Section, TLB, DTL UNCTAD was on UNCTAD's Liner Shipping Connectivity Index (LSCI). It showed how the index is compiled and what its main functions were. The index comprises of five components: Ships, TEU capacity, Shipping companies, Services and Maximum ship sizes. The data, offering now a 7-year coverage (2006-2012) is currently collected through a subscription to Lloyd's List Intelligence. With the additional purchase of distance tables, four of the five elements of the LSCI are entered into a matrix, which can then be used to observe trends (e.g., shipping networks, levels of competition, and access to liner shipping services). The data can also be used as an explanatory variable in gravity models, or for models examining transport costs and trade competitiveness.

15. The morning session ended with a series of questions and answers clarifying the earlier presentations, e.g., whether it was countries or ports that were being benchmarked as the latter should be more preferable to port users. Comments were also made clarifying the needs of ports users on the services expected from ports. Discussions also ensued on the role of UNCTAD in a benchmarking initiative. In particular, clarification was sought on who would benefit from the wide availability of port performance indicators and the scope of the initiative to include further datasets on trade facilitation measures and intermodal/inland transport. It was clarified that ports, port users, academia and policy makers could all benefit from the initiative depending on the level of transparency that ports were prepared to give. An index or compendium of data with anonymous results could be provided but its use would be limited. For example, port users could not use the information to make decisions on port choice nor could policy makers use it to make decisions on where to invest.

16. As a concluding remark about the outcome from the industry perspective when considering the development of an index of port indicators, it may be highlighted that participating port managers and government authorities would converge in the need for such an index to offer substantive and significant comparisons capabilities; its development should taking into account the port context and the national economy.

The academic perspective

17. The afternoon session on current research and analysis conducted by academics opened with a presentation by Dr Song of Heriot-Watt University; he introduced the notion of performance as a relative concept of output over input. This was juxtaposed with the concept

[1] TEU – Twenty-foot Equivalent Unit

of benchmarking, which usually compares performance to some "optimum" value. The variables that can be measured include productivity, efficiency, and effectiveness. In such a context, logistics and supply chain aspects appear more difficult to measure. Data to be produced in measuring port performance include that relating to the cargo, vessel or terminal. On the input side, data could include land/labour/capital as well as equipment and port charges. On the output side, data could cover volume, time and monetary items, as well as qualitative aspects like client satisfaction. It was stressed that measures could include hard (quantifiable) data, as well as more soft (perception-based) information.

18. A practical example of comparing port data for various ports was presented by Mr Hintjens of the University of Antwerp, making use of principal components analysis. The method aims at reducing the number of data elements without losing information, by combining data into its underlying "components". In this example, the problem of different units and ways of measuring was overcome by looking at percentage changes, which can then more reasonably be compared between different ports. The two components generated in this case consisted of two groups of different cargo types; component 1 (Liquid Bulk, Containers and Conventional Cargo) generated value added for the local port community through increased employment and economic benefits, while component 2 (RoRo[2], Dry Bulk and Liquid Bulk) generated less local benefit. Different ports were found to grow at different rates when considering the two components, which gave a clearer picture of the individual benefit of the cargo types.

19. Several experts stressed the importance of ensuring the consideration of exogenous factors in measuring port performance. Such exogenous variables may include contextual aspects, policy and regulatory issues, as well as a general time trend. A method was presented by Dr. Angela Bergantino of the University of Bari that aimed at including such exogenous variables using Data Envelopment Analysis (DEA); she showed that working with the "cleaned" inputs gave quite different results. From this example, it could be concluded that when defining a set of port performance indicators, identifying and taking into account external elements helps to give an alternative non-parochial picture, and helped addressing actual problematic factors and designing more effective remedial actions.

20. In a presentation on measuring efficiency, Professor Kevin Cullinane of Edinburgh Napier University explained the differences between productivity and efficiency. Productivity may not necessarily imply efficiency, as productivity on its own does not take into account the costs of the required inputs. Productivity and efficiency both depend on a given production function, which will be different depending on the technologies used, which in turn largely depends on initial investment. Especially in the container business, terminals often have surplus capacity, which encourages management to focus on maximizing throughput with the given infrastructure and equipment. In such a case, maximising throughput could increase productivity of the terminal but entail efficiency losses in the whole of the logistics chain.

21. Professor Cullinane noted that the two most generally applied methods to measure "efficiency" are 1) DEA, and 2) Stochastic frontier analysis (SFA). In the case of DEA, a non-parametric approach, the efficiency frontier is established by what is empirically obtained by other players in the market. In the case of SFA, based on the same underlying data, a frontier is established making use of a function, i.e., incorporating a functional form with set parameters. Both methods rely on and require large amounts of data. The software and calculations are relatively easy to undertake, but getting the data remains the main challenge. In applying either of these two methods, various studies have concluded that increased private sector participation has led to increased efficiencies. It was also pointed out that the exogenous factors mentioned earlier could also be included in DEA analysis by listing them as negative outputs.

[2] RoRo – Roll-on Roll-off a term used to describe self-automated cargo not requiring specialized handling equipment.

22. In the concluding part of the afternoon session, the Chair introduced and commented upon the results of an online poll of the meeting participants which was conducted during the lunchtime period. Participants were asked to select from a list of 8-10 possible indicators what they would most like to see ports provide. Responses by 14 participants (approximately one-third of the participants present) showed that the top indicators for container ports were: percent of transhipment; cargo/vessel dwell time; crane hours and total TEUs handled. For all ports the most desired indicators were: vessel time in port; berth length and total tonnes of cargoes handled.

23. An example of measuring port effectiveness was presented by the Chair of the meeting through the practical presentation of the results of a study undertaken for the American Association of Ports Authorities (AAPA). The study aimed at identifying "best practice" scores for a variety of qualitative assessment criteria as seen by port users. An interesting aspect was that ports provided user contact information, and the study surveyed users to acquire port scores, trusting the AAPA would not publish nominal information, and as a result only consolidated anonymously presented reports were returned to the participating ports, i.e. the recipient port only received its own ranking and the best practice score on each of the criteria, in order to know what criteria would be worthy of port investment. Each port did not get the scores of others. The importance and the scores on each criterion differed by user type: traders, shipping lines and local service suppliers. In discussing what conclusions to draw from the AAPA survey, experts noted that action could be presented in two dimensions: 1) the port's performance relative to the benchmark, and 2) the relevance of the particular performance indicator to the particular user group.

III. CLOSING DEBATE AND RECOMMENDATIONS BY THE MEETING

24. The meeting noted that future port performance measurements need to take into account both inputs (e.g. land, labour, capital etc.) and outputs (e.g. volumes processed, times, financial returns, etc.). It was further stressed that a balance has to be struck between the data that would be "ideal" to have and the data that can realistically be obtained. Collecting homogenous data remains a key challenge which largely depends on the wiliness of ports to share operational information.

25. Ports may be reluctant to share some of their data, both for commercial reasons and for fear of being confronted with "misleading" results, such as comparing import cargo with transhipment, TEUs or FEUs, full containers or empty containers etc. In practice, public port authorities are more likely to be willing (and obliged) to publish and share data. The suggestion was made that concession agreements (or other contracts with private operators) should include provisions that require private operators to provide data. Yet this does not solve how to get the data part way through a concession when there is no such provision in the concession agreement.

26. Many speakers and participants mentioned the prior work of UNCTAD as an important reference tool for ports to measure their productivity. Several interventions praised UNCTAD initiative to push the boundary of data collection further citing that UNCTAD is well placed to a) obtain data and b) ensure confidentiality based on its acknowledged role as a neutral partner. UNCTAD is also well positioned to ensure the use of such data to produce studies and information as a "public good", for example in the context of ports' adaptation to climate change. Experts also suggested UNCTAD should work with regional port associations.

27. In summary, experts at the meeting supported UNCTAD's initiative to continue its analytical work towards the development of port performance assessment indicators. In particular, the experts considered positively the following initial steps:

1) To make best possible use of the network of ports within its Port Training Programme to pilot test the readiness of ports to share selected indicators.

2) To explore the definition of data sets in cooperation with international/regional organizations.

3) To concentrate primarily on data related to operational efficiency before including other possible contextual information (e.g. environmental, economic and social aspects).

4) To anticipate when building a compendium of data the possibility of including additional contextual information.

ANNEX
Final list of participants

Ms. Regina **Asariotis**, Chief, Policy and Legislation Section, Trade Logistics Branch, DTL, UNCTAD

Mr. Mark **Assaf**, Officer-in-charge, Human Resources Development Section/TrainForTrade, DTL, UNCTAD

Mr. Yossi **Bassan**, Chairman of the Committee on Port Operations and Logistics, International Association of Port and Harbors (IAPH), Israel

Ms. Angela Stefania **Bergantino**, Associate Professor, University of Bari, Bari, Italy

Ms. Mary **Brooks**, William A. Black Chair of Commerce, Dalhousie University, Halifax, Canada

Mr. Karsten **Bruenings**, Captain, Port and Maritime Transport Consultant, Bremen, Germany

Mr. Obame **Calixtel**, Chef de Division des Statistiques et de l'Observatoire Multimodal, Conseil gabonais des chargeurs, Libreville, Gabon

Ms. Elisabeth **Clément-Arnold**, BPW-International, Fribourg, Switzerland

Mr. Kevin **Cullinane**, Director of Transport Research Institute, Edinburgh Napier University, Edinburgh, United Kingdom

Mr. Kakoudja **Damas**, Représentant pour l'Europe, Conseil gabonais des chargeurs, Libreville, Gabon

Mr. Vicente **Del Río Méndez**, Director General, Fundación Valenciaport, Valencia, Spain

Mr. Berhanu Amaslu **Deress**, Transport Logistics Coordination Directorate Director, Ministry of Transport, Addis Ababa, Ethiopia

Ms. Martina **Fontanet**, PPRISM Project, European Sea Ports Organisation (ESPO), Belgium

H.E. Mr. Evan P. **Garcia**, Ambassador and Permanent Representative, Permanent Mission of the Philippines, Geneva, Switzerland

Mr. Andrew **Higgs**, Alternate Liaison Officer, International Union of Marine Insurance, Zurich, Switzerland

Mr. Joseph **Hiney**, Port Performance in Ireland, Dublin City University, Dublin, Ireland

Mr. Joost **Hintjens**, Researcher, Department of Transport and Regional Economics, University of Antwerp, Antwerp, Belgium

Mr. Jan **Hoffmann**, Chief, Trade Facilitation Section, TLB, DTL, UNCTAD

Ms. Nurhana **Ikmal**, First Secretary, Permanent Mission of Malaysia

Ms. Sabrina **Lanzavecchia**, Civil Society, Geneva, Switzerland

Mr. Denis **Lepatan**, Deputy Permanent Representative, Permanent Mission of the Philippines, Geneva, Switzerland

Mr. Frank **Leys**, Sectoral Activities Department, ILO

Ms. Ana María **Martin Soberón**, R&D Project Manager, Port Development Deparment, Fundación Valenciaport, Valencia, Spain

Mr. Andrea **Merlini,** Permanent Italian Mission to the United Nations, Geneva, Switzerland

Mr. Hector E. **Miole**, Port District Manager, Philippine Port Authority-Port District of Souther Luzon, Manila, Philippines

Ms. Anne **Miroux**, Director, Division on Technology and Logistics, UNCTAD

Mr. Hebel **Mwasenga**, Principal Planning Officer, Tanzania Port Authority, Dar Es Salaam, United Republic of Tanzania

Mr. Samuel **Ntow-Kummi**, Chairman of the Maritime Security, Safety and Operations Technical Committee, The Port Management Association of West and Central Africa (PMAWCA), Accra, Ghana

Mr. Ibrahim **Okanga-Souna**, Directeur du Trafic, des statistiques et de l'Observatoire Multimodal, Conseil gabonais des chargeurs, Libreville, Gabon

Mr. José María **Rubiato**, Head, Trade Logistics Branch, UNCTAD

Ms. Naima **Saeed**, Associate Professor, Molde University College, Molde, Norway

Mr. Perikilis **Saragiotis**, Specialist, Trade Logistics, PSD (Private Sector Development, International Trade & Investment, Investment Climate, Vienna, Austria

Mr. Claudio **Scaratti**, Director, UNIDO, Geneva, Switzerland

Mr. Ayşegü **Şeyma Gençoğlu**, Expert Assistant, Directorate General of Free Zones, Foreign Investment and Services, Turkey

Mr. Onn **Shaharuddin**, Deputy Permanent Representative, Permanent Mission of Malaysia, Geneva, Switzerland

Mr. Dong-Wook **Song**, Reader in Logistics, Logistics Research Centre, Heriot-Watt University, Edinburgh, United Kingdom

Mr. Marco Leonardo **Sorgetti**, Director, FIATA, Zurich, Switzerland

Mr. David **Sparks**, Maritime Consultant, IFC in the Carribean

Mr. Mekonnen Abera **Tadele**, Director General, Maritime Affairs Authority, Addis Ababa, Ethiopia

Ms. Thérèse **Tshibola-tshia-Kadiebue**, Conseiller, République Démocratique du Congo, Mission permanente, Genève, Suisse

Mr. Vincent **Valentine**, Officer-in-Charge, Transport Section, Trade Logistics Branch, DTL, UNCTAD

Ms. Marivil V. **Valles**, Attaché, Permanent Mission of the Philippines, Geneva, Switzerland

Mr. Luis Mariano **Velazquez**, Second Secretary, Permanent Mission of Mexico, Geneva, Switzerland

Mr. Vijayaindiaran **Viswalingam**, Manager, Planning and Development, Port Klang Authority, Malaysia

Mr. Hyunsoo **Yoon**, Technial Expert, Sectoral Activities Department, ILO

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