



Report on the
TrainForTrade special course



Building Port Resilience Against Pandemics



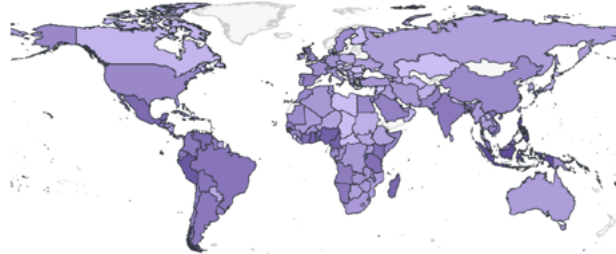
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Building Port Resilience Against Pandemics 2021–2024

Five courses in English, three courses in French, and three courses in Spanish

 **5637**
participants
from
178
countries or areas



78%
average score

94%
satisfaction rate

37%
female participations



“The knowledge acquired during this course will have a great impact in ourselves and the domestic ports at large to operate in standard/world class.”

Zainab Abubakar Ali, Nigeria

“This training allowed me to understand all the logistics that were put in place during the two years of the COVID-19, and how the rapid reaction made it possible to contain this global pandemic.”

Charles Alcegaire, Haïti

“With the knowledge acquired in the course, we are able to focus improvements at work, not only in pandemic situations, but also on occasions when it is difficult for staff to arrive at the workplace.”

Daniela Maria Luz Almada, Argentina



Participants had access to manuals, multimedia presentations, tests, surveys, forum and webinar

The course was organized by UNCTAD with the support of the United Nations Development Account, Irish Aid, ValenciaPort, ValenciaPort Foundation and the Port of Marseille.

Summary

The TrainForTrade (TFT) special course Building Port Resilience Against Pandemics (BPR) was organized by UNCTAD with the support of the United Nations Development Account, Irish Aid, ValenciaPort, ValenciaPort Foundation and the Port of Marseille. It was designed in 2020-2021 and delivered 11 times from 2021 to 2024 in three languages (in English over 5 editions, and in French and Spanish over 3 editions each). Each e-learning course was concluded with a follow-up webinar at the end of the modules.

The total number of participants for all editions of BPR course was 5,637 participants (2,091 women – 37 percent) from 178 countries or areas for all three language versions. Out of the total registered, 3,164 participants (56 percent) received a certificate of completion. Overall, the average score and satisfaction rates for the courses were 78 and 93 percent respectively.

The courses were delivered via the TrainForTrade distance learning platform where participants have access to manuals, multimedia presentations, modules, evaluations, opinion polls, and forums created for each module for discussion with the instructors and other participants.

The course on Building Port Resilience Against Pandemics (BPR) provided a platform for open discussion and the sharing of best practices across borders during a time of global uncertainty and rapidly changing international trade conditions. During a time when travel and in-person gatherings were restricted, BPR's online presence allowed port professionals to understand the complexities and interconnectedness of ports while also being provided with a deeper understanding of the challenges faced by other port communities, whether from neighboring regions or distant parts of the world.

Figure 1. Map showing participants registered by their country of residence

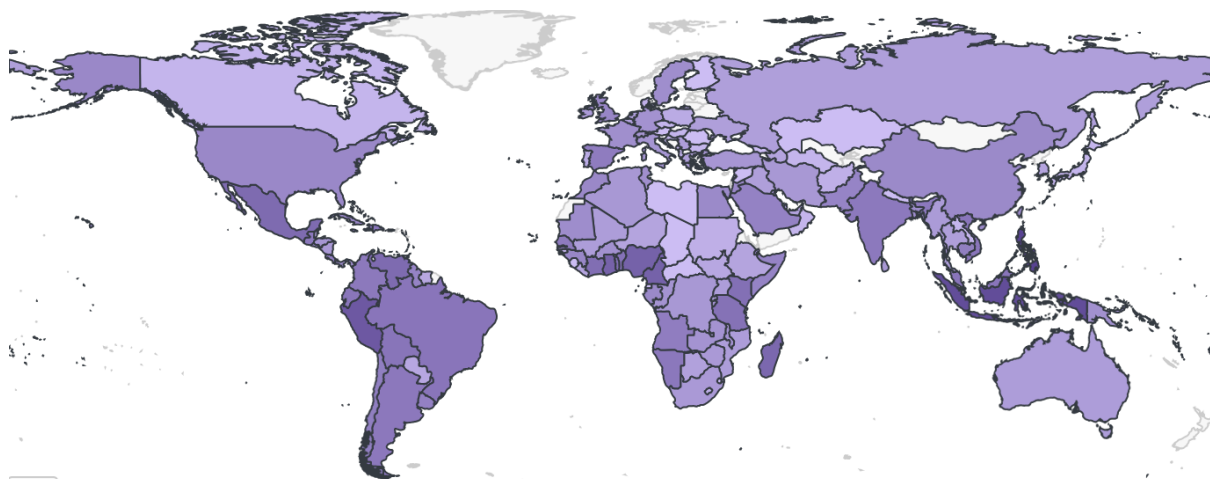


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Background

In the wake of the COVID-19 pandemic, various United Nations entities combined their efforts to propose a joint project to assist in the implementation of standards, guidelines, metrics, tools and methodologies to immediately support governments, including customs and other border agencies, port authorities, and the business community at large, to keep transport networks and borders operational. This support helped facilitate the flow of goods and services while containing the further spread of the COVID-19 virus. One of its components focuses on port resilience against invisible threats and keeping ports safe and operational during pandemics. The project was financed by the United Nations Development Account (UNDA Project 2023X: Transport and Trade Connectivity in the Age of Pandemics)¹ and Irish Aid.

TrainForTrade's (TFT) project includes the exchange of best practices, new safety standards and the design and delivery of a training package to build essential skills for port community managers to help protect people and secure vital trade in ports. The TFT Special Course **"Building Port Resilience Against Pandemics"** gives a precise and ordered view of the different aspects to be considered by a port or port organisation in a pandemic situation or similar disruptions. It considers both a general vision and specific actions, the psychological and emotional aspects of a pandemic related to workers, the technological tools, and the actions related to ensuring the main activity of a port are able to continue, notably the management of the flow of goods.

Objectives

The primary objectives of the course on Building Port Resilience Against Pandemics (BPR) are to assist in implementing measures and to prepare for and mitigate contingencies associated with a pandemic within ports, port terminals, port communities and other maritime stakeholders.

More specifically, at the end of the course, participants can:

- Describe and prepare crisis protocols;
- Design communication strategies and implement effective digital communication tools;
- Appreciate the potential impacts of pandemics on staff well-being and address any mental and emotional distress-related issues;
- Identify appropriate technology solutions for alternative work arrangements;
- Assess disruption scenarios for cargoes and passengers;
- Identify legal and financial risks;
- Define appropriate mitigation measures.

¹ Project evaluation is available at https://www.unevaluation.org/member_publications/independent-evaluation-development-account-project-2023x-transport-and-trade

Target population

This special course is aimed at all actors involved in international trade, especially those involved with port operations. The courses' primary and secondary target populations are representatives from the following organizations:

Primary target:

- Port authorities (including middle and senior level managers)
- Private port management companies
- Port community operators (including freight forwarders, hauliers, customs agents, ships' agents, etc.)
- Port agents (including pilots and harbor masters)
- Line ministries staff: Ministry of Transport, Ministry of Health, Ministry of Commerce

Secondary target:

- Trade facilitation committees
- Port safety and security officers
- Trade unions
- Stevedores
- Local authorities

Design of the course curriculum (DACUM)

The TrainForTrade methodology called Design a Curriculum (DACUM) is a structured brainstorming activity aimed at providing course developers with guidance on how to design an engaging and effective course, i.e. the course on "Port Resilience Against Pandemics". The aim of a DACUM is to precisely outline the objectives and content of the job aids which require development, establish training objectives, identify target population(s), and articulate the expected outcomes of the training for the participants. Furthermore, the DACUM proposes how to design tests for each objective and how to organize the objectives into modules to produce a structured curriculum. In sum, the process results in a final course outline developed and validated by international experts and beneficiaries.

Following the pandemic outbreak in March 2020, the three 75-minute DACUM sessions were organized virtually in June 2020 via Microsoft Teams with the use of the online shared brainstorming tool, Padlet. In addition to attending the three online sessions, DACUM participants were asked to provide inputs and reference documents between the sessions alongside reviewing and validating the final outline of the course. Participants also provided feedback through anonymous questionnaires to help the team adjust the process as necessary. A total of 18 responses regarding the three DACUM sessions were received with a total satisfaction rate of 97%. The results of the DACUM sessions are presented in the sections below.

21 experts from port communities around the world participated in the DACUM sessions. Represented countries included Belgium, Brazil, the Dominican Republic, France, Ghana, Greece, Indonesia, Ireland, Malaysia, Nigeria, the Philippines, and Spain.

Figure 2. Screen captures of the DACUM sessions in 2020



Development of the training package

Based on the validated detailed structure of the new BPR course, experts from Valencia Port and the Valencia Port Foundation drafted the course package under the guidance and pedagogical advice of the TrainForTrade team. The process started in August of 2020 and was completed in February of 2021, covering several steps of discussion, exchanges, and modifications to reach the required quality. Owing to worldwide travel restrictions in place, the digital package required the development of the scripts and interactive presentations by experts to be recorded by a digital media company located in Valencia. The first digital package was tested and validated with a sample of the target population and then upgraded and fine-tuned with gamification and other high-end functionalities that were embedded into the TrainForTrade online learning platform.

Pedagogical material

The training package consists of four sections delivered over a period of two weeks – two sections per week. Upon completion of the two weeks of training, the course continues by offering two optional simulation exercises, after which it is finally completed with a closing webinar. For a detailed agenda please refer to [Annex 1: Generic agenda of the e-learning course](#). Each section includes a participant manual, an interactive video to assist participants in understanding the manual's contents, and a discussion forum. Port experts engaged with participants online in the fora for each of the course sections. After each week, participants were asked to complete a test and an opinion questionnaire. Additionally, participants were given the opportunity to submit an optional assignment presenting measures being implemented in their ports. It is estimated that participants averaged about 20 hours to complete the entire course.

Official launch under UNCTAD15

The official launch of the special course Building Port Resilience Against Pandemics was held virtually on 22 June 2021. The launching webinar was a high-level online [UNCTAD15 pre-event](#), where participants discussed the importance of keeping supply chains open and allowing maritime trade to continue despite the changing context in which economic sectors were operating as a result of the COVID-19 pandemic and its associated restrictions.

A total of 260 participants (110 women, 42 percent) from 60 countries registered to the launching webinar. Out of 260 registered participants, 177 successfully connected to the event via Zoom. The event was also broadcasted live on UNCTAD's Facebook page. During

the session, various tools were used to engage participants in the discussions (e.g. icebreaker, polls, Q&A).

Several high-level speakers and panelists participated in the launching event. The welcoming remarks were made by Ms. Isabelle Durant, Acting Secretary-General of UNCTAD. The panel discussion was led by H.E. Mr. Michael Gaffey, Ambassador and Permanent Representative of Ireland to the United Nations; H.E. Ms. Aurora Díaz-Rato Revuelta, Ambassador and Permanent Representative of Spain to the United Nations; Mr. David Jean-Marie, Managing Director & Chief Executive Officer of Barbados Port Inc.; Mr. Aurelio Martínez, President of the Port Authority of Valencia; and Mr. José Carlos Mario Beni, Comptroller of the General Administration of Ports S.E, Port of Buenos Aires whose video was shown to participants. Finally, the moderation and Interactive discussions were managed by Ms. Shamika Sirimanne, Director of UNCTAD's Division on Technology and Logistics. The recording of the launch can be found [here](#).

Course deliveries

Prior to the June 2021 official launch of the special course on Building Port Resilience Against Pandemics, an initial English-language pilot of the course was conducted in March of that year. This preliminary course was offered to a select group of participants who were already part of the TrainForTrade network. The pilot course saw 132 participants (43 women – 33 percent) from 15 countries or areas register; of this, 86 participants received a certificate (27 women – 32 percent). The pilot edition was used to gain meaningful feedback on the course and its content and to provide necessary adjustments.

Following the UNCTAD15 pre-event launch webinar, the first official running of BPR began. Going forward, all BPR courses were open to interested members of the public.

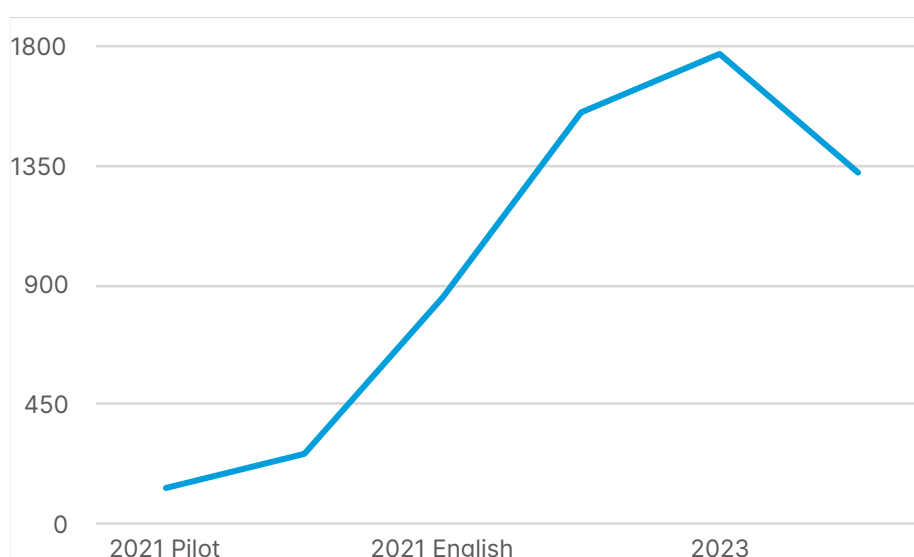
The first BPR course was offered in English and was held from 28 June to 30 July 2021. This first running saw 853 participants (304 women – 36 percent) from 105 countries or areas register. After the successful implementation of BPR in English, the training was expanded to include French and Spanish versions with their dedicated platforms, training packages, videos, tests and subject matter experts. From 2022–2024 the BPR was run in three languages, all concluding with closing webinars.

Table 1. BRP participants across all events in English, French and Spanish

Dates	Event	Language	Participants		Certificates	
			Total	Women (%)	Total	Women (%)
June 2020	DACUM	English	29	31	n/a	n/a
March 2021	Pilot course	English	132	33	86	31
22 June 2021	Official launch	English	261	n/a	n/a	n/a
March 2021	BPR course and webinar	English	853	36	597	38
March 2022	BPR course and webinar	English	974	31	636	32
		French	254	34	149	34
		Spanish	325	39	180	35
March 2023	BPR course and webinar	English	916	39	475	42
		French	390	37	208	37
		Spanish	468	46	233	48
March 2024	BPR course and webinar	English	682	39	310	41
		French	280	31	122	34
		Spanish	363	42	168	40
All courses			5637	37	3164	38
All events			5927	37	n/a	n/a

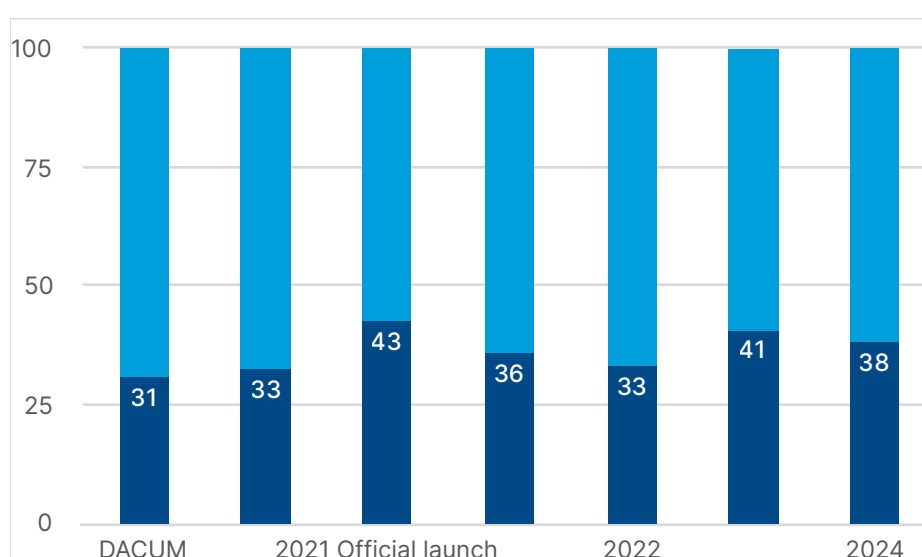
Participation in the BPR course in the three languages increased from inception through 2023. The final running of the course in March 2024 saw a small decline in participants. This reduction in participation can be linked to two main causes. Firstly, the diminishing impact of the COVID-19 pandemic and the associated easing of restrictions on the freedom of movement of people and trade. This lack of presence of the pandemic and its limitations would have caused a decrease in motivation for taking a course on such a topic. Secondly, the initial course disseminations effectively engaged a significant portion of the target audience, resulting in a more limited pool of participants available for the 2024 edition of the BPR course.

Figure 3. Number of BPR Participants overtime in all three languages



Detailed information about participation rates broken down by language for each delivery of BPR can be found in [Annex 3: Number of participants to the e-learning courses by language](#).

Figure 4. Course delivery participation overtime by gender for all languages combined



Detailed information about participants, with breakdown by gender and countries, please refer to [Annex 4: Participants of the e-learning courses by country](#).

Delivery of the courses

Registration and course participation were free of charge. Registered participants were accepted and provided with access to the online platform user guide and credentials to log on to the TrainForTrade e-learning platform.²

The e-learning courses were conducted according to the established schedule (see [Annex 1: Generic agenda of the e-learning course](#)). During the two-week period, participants had

² Accessible at <https://learn.unctad.org>

the opportunity to run through the four sections of the course, to learn through various multimedia means available on the e-learning platform (manuals and videos), and to interact in the discussion fora. Participants had the flexibility to study and participate in the fora of the different sections of the course, generating enriching discussions and allowing the exchange of information, ideas, and experiences with course experts as well as other participants. At the end of each week, participants were evaluated through an online test. At the end of each week and at the end of the course, participants were invited to share their feedback and suggestions. This information was used to improve the training material and the organization of the courses in the future (for more information, refer to the Results and Evaluation section on page 14).

Simulation exercises

The simulation exercises embrace gamification in their design, combining a participant's want to “win”, or pick the right solution to a problem, with active learning. Week three of BPR encompasses two simulation exercises developed for the course. The first simulation exercise, entitled “Be the Captain in this Uncertain Time!”, places participants in the role of a ship's captain tasked with making difficult decisions amid the challenges of the pandemic. The second simulation exercise, entitled “Are you Pandemic-ready?”, has participants assume the position of general manager of the largest port authority of their country, presenting multiple pandemic-related scenarios and the decisions they may take to avoid worsening situations.

The way scenarios played out during the exercises depended on the decisions taken by participants. It was therefore encouraged that participants run through the simulation exercises more than once so they may be able to test the multiple pathways a scenario may provide.

Since the closing of the online courses, the two simulations have been made available to all on the TrainForTrade website:

- [Be the Captain in this Uncertain Time!](#)
- [Are you Pandemic-ready?](#)

Figure 5. Screen capture of simulation exercise game “Be the Captain in this Uncertain Time!”



Closing webinars

The final activity offered in the BPR courses were the closing webinars hosted by TrainForTrade on the Zoom platform. One webinar was hosted per course. The TrainForTrade team would begin advertising the webinars during week one of the course via the weekly emails sent to participants. Participation and attendance at the webinars were optional, however those who presented received a special mention on their certificates.

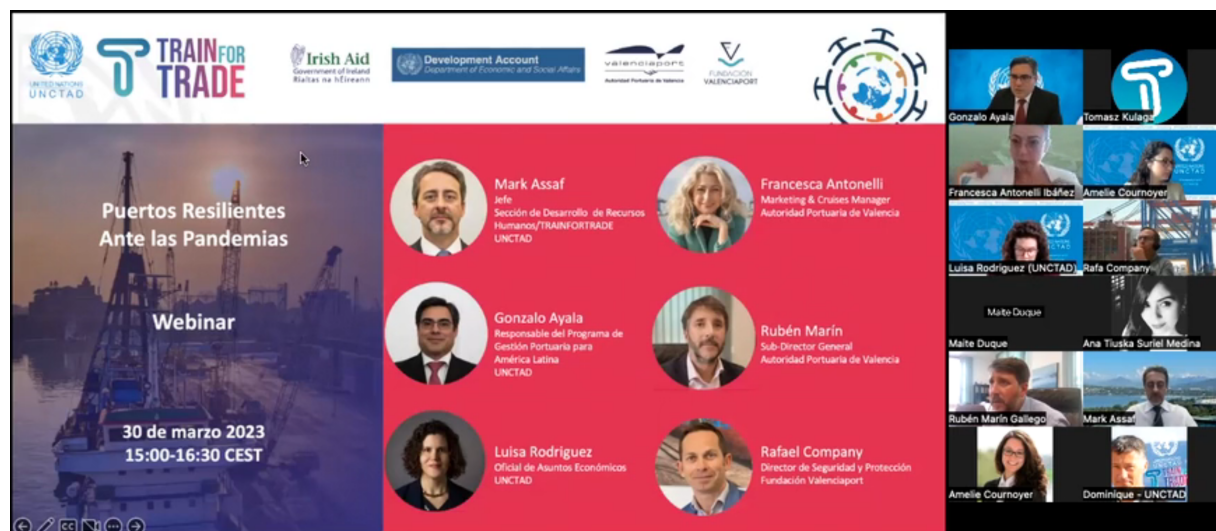
For their presentations in the webinars, participants are asked to present a case study explaining how measures related to port resilience against pandemics were implemented in their home country and port(s).

Before the participants presentations, the TrainForTrade team and participating experts showcased thematic presentations. From the TFT team, a course summary, recap of the fora and course statistics were presented. After the course recap, course experts presented topics related to port resilience against pandemics from their professional perspectives, digging into the specifics of certain topics such as hygiene, resilience to shocks in the shipping industry and overall current trends in the shipping and maritime world. The webinars concluded with participant presentations.

The webinars were particularly appreciated during the COVID-19 lockdowns, as this was an opportunity for participants and experts to gather live and discuss relevant topics and shared experiences from a distance.

The webinars were recorded and later the Q&As transcribed with all posted on the course page for participants to have access. Additionally, the individual presentations from TrainForTrade, experts and participants (including submissions which were not presented during the webinars) were posted to the course page. The webinar agendas can be found in Annex 3: Agendas of the closing webinars [of this report](#).

Figure 6. Screen capture of the closing webinar for the 2023 BPR course in Spanish



Amélie Cour... (with UNCTAD logo)	rmarin@valen...	Mark Assaf	Tomasz Kulaga (with UNCTAD logo)	Janjarang Kijitkh...	Francesca Antone...	Dominique C...	Srdja Lješević
Florence Hagan...	Mika Jouhki	Adelaide Panf...	Dryden Rojas	Lorenzo Marti...	Tony	Myriam Desro...	Galaxy Tab A (...)
JE ASUQUO...	John Moore	Itodo Silas	Chigozie Eme...	PPA Batangas ...	hdesgranges	Vincent Law	Kaumi Bakar
Gonzalo Ayala (with UNCTAD logo)	Alvaro Moreira	Capt Rodien P...	Mary Louise...	Rafa Compan...	helmi	ummi	Kasypi Mokhtar
Art Niggas	Yemi Adeyemo	Romeo Carlo ...	Joshua Minab...	Amin	Zainab Arzika	ROTIMI AROG...	Iawanjere
Hafiza Sani U...	Dehziyah Akba	Stanley Yitnne	Tone Fardahunsu	Helen Giwa-O...	Sharon Amu...	Ts MCHD KH...	KATE FITTA OB

Participants engaged in lively discussions both amongst each other and with experts in the course fora. **There was a total of 7811 posts** exchanged across all courses. The fora exchanges focused on topics covered by the course. The word cloud below presents the words exchanged most across all courses in the three languages.

[illegible]

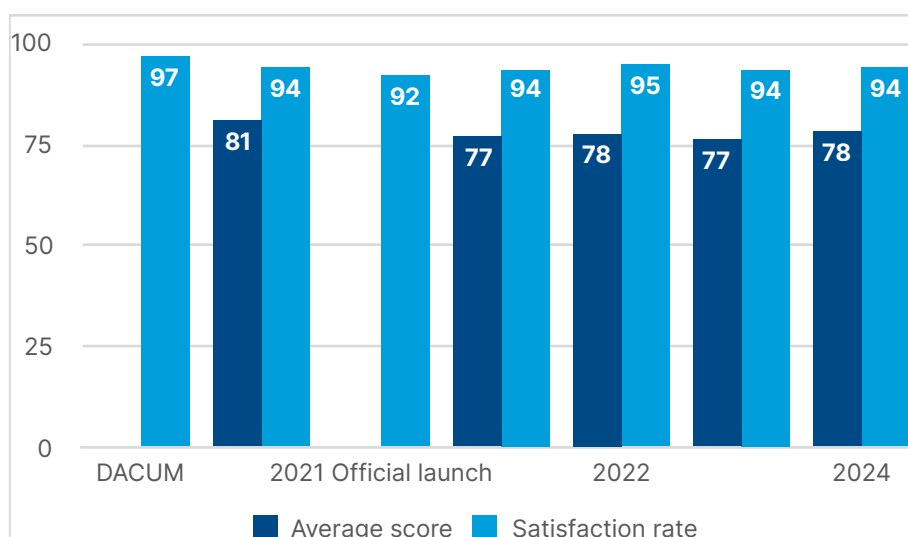
Results and evaluation

At the end of the first two weeks, covering sections 1–2 and 3–4 respectively, participants were asked to evaluate their knowledge through a quiz. The overall average score for all courses in the three languages was 78%. With participants required to achieve a 50% success rate to pass the course, this average score indicates the course remained challenging yet manageable.

The evaluation of the modules and the course itself have been designed to assess the learning process of the participants, the accuracy of the training material and the organization of the course, taking into account different aspects such as the quality of the training material, the organization of the modules, and the module subjects.

Each week, participants were asked to complete an opinion questionnaire about the sections they had just completed. They were also invited to evaluate the course as a whole at the end. Based on the feedback and recommendations from the participants, adjustments have been made to the manual in every edition. In addition, DACUM sessions and launching webinar were also evaluated for participants' satisfaction through a follow-up survey. Satisfaction rates for all the events were at very high levels between 92 and 97 percent (see the figure below).

Figure 9. Average score and satisfaction rates (%) for events overtime in English, French, and Spanish



Policy recommendations

In 2021, participants were invited to suggest recommendations which may be utilized in the future to help draft policy advice related to a pandemic response in port communities. Participants were later invited to vote on the proposals suggested by others. Participants in the three languages provided 300 suggested ideas for policy recommendations. The recommendations were shared on the course page and participants were invited to vote for those they preferred most. Annex 6 outlines the top-ranked recommendations based on vote count.

The following policy recommendations were collated following discussion and analysis by participants, and published in February 2022 in *UNCTAD Policy Brief No. 93 on Emerging strategies for ports during the pandemic*:

- Ports should use business continuity planning processes to develop action protocols for pandemic scenarios based on recommendations from national and regional authorities
- Contingency planning scenarios should be developed for the successful implementation of preventative actions and to identify appropriate responses to suspected infectious cases in a pandemic situation
- A communications strategy that is fit for purpose and aimed at all stakeholders, including employees, suppliers, customers, port users, government agencies and media, is essential
- Port managers should prioritize the education of port workers on how they can best maintain physical and mental well-being during a pandemic
- The provision of vaccination facilities, testing centres and contact tracing is a key feature and is needed to support the health and well-being of port workers
- The availability and management of appropriate technology is paramount in a pandemic situation and ports should ensure that technology, capacity and security measures are redesigned to support the high number of staff relying on telecommuting and digital communications for meetings
- Port managers should assign a high level of priority to implementing productivity tools for telecommuting staff and digitalizing processes, to enable business to continue uninterrupted while improving information technology security and resilience
- Designating transport and port workers as essential workers with the particular responsibility of maintaining services can help alleviate disruptions to supply chains, and ports should provide “green lanes” on existing road networks and allocate dedicated berths for vessels in ports for the rapid transport of emergency supplies

The policy brief can be found on UNCTAD’s website with highlights and downloadable versions in English, French and Spanish: [Emerging strategies for ports during the pandemic](#).

Course Impact

A course survey was distributed to participants of the BPR courses in the months following the course delivery. The survey served to evaluate the overall course with a particular emphasis on lessons learned and impacts on participants’ home ports, hence allowing for a few months gap between the end of the course and the survey. Impact quotes from the follow-up surveys are provided below:

BPR English delivery:

“This has greatly helped in understanding how international ports operate and the need to bring such operations to our domestic ports because of their importance. The knowledge acquired during this course will have a great impact on ourselves and in our domestic ports at large while operating with world-class standards.” (*Zainab Abubakar Ali, Nigerian Ports Authority, 2021 English edition*).

BPR Spanish delivery:

“Con los conocimientos adquiridos en el curso son importantes para poder focalizar las mejoras en el trabajo, no sólo en situaciones de pandemias, sino también en ocasiones en que se dificulte al personal (por razones de fuerza mayor) la llegada al puesto de trabajo. Por otro lado, es relevante señalar los grupos de respuestas que se plantean y de quienes dependen las tomas de decisiones, para realizar las capacitaciones pertinentes y simulacros necesarios, y llegado el momento sepan reaccionar con seguridad pudiendo lograr la mayor eficiencia y eficacia en sus acciones.” (*Daniela Maria Luz Almada, Dirección Provincial de puertos tierra del fuego, Argentina, 2022 Spanish edition*).

English translation: “*With the knowledge acquired in the course, it is important to be able to focus on improvements at work, not only in pandemic situations, but also on occasions when it is difficult for staff (due to force majeure) to arrive at the workplace. On the other hand, it is relevant to point out the groups of responses that arise and on whom decision-making depends, to carry out the relevant training and necessary drills, and when the time comes, they know how to react safely, being able to achieve the greatest efficiency and effectiveness in their actions.*”

BPR French delivery:

“Cette formation a m'a permis de comprendre toute la logistique qui a été mis en place au cours des deux années de la pandémie du Coronavirus, et comment la réaction rapide des Autorités Portuaires a permis de circonscrire cette épidémie mondiale en ayant les bons réflexes quant à la création des zones vertes, la mise en valeur des plateformes permettant le télétravail, aussi bien que la valorisation de la santé mentale durant la période de Pandémie. Les connaissances acquises à travers ce cours me serviront tant pour ma vie personnelle que pour ma vie professionnelle. Je vous en remercie !” (*Vanessa Charles Alcegaire, Ministère du Commerce et de L'Industrie d'Haiti, 2023 French edition*).

English translation: “*This training allowed me to understand all the logistics that were put in place during the two years of the Coronavirus pandemic, and how the rapid reaction of the Port Authorities made it possible to contain this global pandemic by having the right reflexes regarding to the creation of green zones, the development of platforms allowing teleworking, as well as the promotion of mental health during the pandemic period. The knowledge acquired through this course will be useful for both my personal and professional life. Thank you!*”

Impact

The course on Building Port Resilience Against Pandemics demonstrated substantial and measurable impacts with regards to both institutional preparedness and individual behavior in port communities during the COVID-19 pandemic. The course successfully reached its intended audience, including a wide range of relevant stakeholders such as port authorities, customs officials, and ministries — as confirmed by the participation data.

As per the June 2024 Independent Evaluation Unit report “[Transport and trade connectivity in the age of pandemics \(United Nations Development Account project 2023X\)](#)”, the course compelled actions in response to the COVID-19 pandemic amongst participating ports. 62% of the 249 surveyed participants stated that the course had a significant impact on actions in their port communities, with 29% indicating a limited impact. The course also influenced the development of business continuity plans (73%) and worker well-

being and vaccination support (72%). Furthermore, the course had a strong personal behavioral impact, with 80% of participants reporting significant influence on actions such as mask usage (95%), use of disinfectants (94%), and vaccination uptake. Only 1% of those surveyed noted not being influenced to implement new measures by the course. While these data indicate a substantial impact on course participants that is very impressive for an online course, it also presents a best practice example to follow up with a survey to assess whether recommendations have actually been applied in practice.

- *Excerpt from the report: “Transport and trade connectivity in the age of pandemics (United Nations Development Account project 2023X)”*

Lessons learned

The Building Port Resilience against Pandemics (BPR) course was an unexpected success during the highly unusual and challenging period of the COVID-19 pandemic. The TrainForTrade team had initially set modest expectations for stakeholder engagement, but the level of participation, the course’s relevance, and its broad geographic reach exceeded projections. This response opened new horizons for the programme.

TrainForTrade was able to act quickly, thanks to its prior investment in e-learning and digital service infrastructure. A concrete solution was rapidly developed to support port communities worldwide, many of which were experiencing significant disruptions due to lockdowns.

While the traditional Port Management course was already firmly established in more than 40 port communities across Africa, Asia, Europe, Latin America, and the Caribbean, the BPR component elevated the TrainForTrade Programme to a new level. It removed previous limits on coverage and participation, allowing for truly global reach. The digital solutions and support delivered through the BPR course had a recognized impact. Building on this success, the programme is now expanding its offerings with new products and services tailored to the evolving needs of the global port community.

These key points are based on the experience gathered during the BPR course deliveries.

Institutionalize impact assessment

The use of post-course impact surveys should be standardized across all TrainForTrade courses, not only for tracking outcomes, but also for validating the application of knowledge in real-world contexts.

Strengthen follow-up mechanisms

Implement systematic follow-up engagements with participating institutions to evaluate the implementation of resilience measures over time and gather best practices.

Leverage digital delivery

Continue to invest in interactive digital platforms for training delivery, recognizing that high-impact outcomes are achievable remotely when courses are well-designed and targeted.

Expand course themes

Use the successful Building Port Resilience model as a template for future courses. Two new TrainForTrade courses are already being developed on energy transition and digital transformation in ports.

Conclusion

Over its three years of running in English, French, and Spanish, 3164 participants received certificates of completion for the course on Building Port Resilience Against Pandemics (BPR). The delivery of this course was well received, with an overall satisfaction rate of 95 percent and a success rate of 78 percent.

BPR was produced to assist port professionals in how to handle and mitigate shocks caused by the COVID-19 pandemic. In the wake of other global supply chain disruptions, the need for resilient ports and port communities is greater than ever. This course has proven useful in opening participants' eyes to the vast interconnectedness of today's global trade world, while also showing that small, organized, planned efforts can go a long way in protecting people while keeping operations flowing.

Annex 1: Generic agenda of the e-learning course

Week	Description	Activities
Week 1	Introduction	▪ Watch the introduction video
	Section 1. Crisis Protocol and Communication Strategy	▪ Read Section 1 of the manual ▪ Watch the Section 1 interactive video ▪ Engage in Section 1 forum discussions
	Section 2. Staff Management, Well-being, and Resilience	▪ Read Section 2 of the manual ▪ Watch the Section 2 interactive video ▪ Engage in Section 2 forum discussions
	Evaluation	▪ Run the Quiz Week 1 (on Sections 1 and 2) ▪ Complete the Week 1 anonymous opinion questionnaire (on Sections 1 and 2)
Week 2	Section 3. Technology Preparedness	▪ Read Section 3 of the manual ▪ Watch the Section 3 interactive video ▪ Engage in Section 3 forum discussions
	Section 4. Cargo Flow Continuity	▪ Read Section 4 of the manual ▪ Watch the Section 4 interactive video ▪ Engage in Section 4 forum discussions
	Evaluation	▪ Run the Quiz Week 2 (on Sections 3 and 4) ▪ Complete the Week 2 anonymous opinion questionnaire (on Sections 3 and 4)
Week 3	Self-paced simulation exercises 1. Be the captain in this uncertain time! 2. Are you pandemic-ready?	▪ Complete the two simulation exercises
	Optional assignment	▪ Complete the optional assignment on policy recommendations
	Conclusion	▪ Watch the conclusion video ▪ Complete the final anonymous opinion questionnaire (on the course) ▪ Complete the Golden Book
Week 4	Webinar	▪ Participate in the webinar to be held on Zoom

Annex 2: Number of participants in the e-learning courses by language

BPR English delivery	Participants		Certificates	
	Total	Women	Total	Women
1st delivery - Pilot (March 2021)	132	43	86	27
Launching webinar (22 June 2021)	261	111	NA	NA
2nd delivery (June-July 2021)	853	304	597	229
3rd delivery (2022)	974	303	636	204
4th delivery (2023)	916	361	475	199
5th delivery (2024)	682	267	310	127
Total	3818	1389	2104	786

BPR French delivery	Participants		Certificates	
	Total	Women	Total	Women
1st delivery (2022)	254	86	149	51
2nd delivery (2023)	390	143	208	76
3rd delivery (2024)	280	87	122	42
Total	924	316	479	169

BPR Spanish delivery	Participants		Certificates	
	Total	Women	Total	Women
1st delivery (2022)	325	127	180	63
2nd delivery (2023)	468	217	233	113
3rd delivery (2024)	363	153	168	67
Total	1156	497	581	243

Annex 3: Agendas of the closing webinars

Agenda of the English 2024 closing webinar

Held on 11 March 2024 from 13:30 – 15:00 CEST

Introduction and feedback on the course

- Introductory remarks – Mr. Mark Assaf (UNCTAD)
- Course results and feedback – Ms. Liliane Flour (UNCTAD)

Thematic discussions

1. Crisis protocol and communication strategy – Ms. Francesca Antonelli (Valenciaport)
2. Staff management, wellbeing and resilience – Mr. Rafael Company (Valenciaport Foundation)
3. Technology preparedness – Mr. Rubén Marín (Valenciaport)
4. Cargo flow continuity – Mr. Rubén Marín (Valenciaport)

Maritime transport

- Navigating through disruption – Ms. Lili Flour (UNCTAD)

Examples of pandemic-related policies and measures

- Mr. Ebrima Weatherol, Assistant Manager Operations, Gambia Ports Authority-Ferries
- Mr. Mohamed Elsousi, Digital Marketer, Misurata Free Zone Port, Libya
- Mr. Vikram Gawade, Global Logistics Analyst, UPL Limited, India

Wrap up and way forward

- Ms. Amélie Cournoyer and Mr. Mark Assaf (UNCTAD)

Agenda of the French 2024 closing webinar

Held on 12 March 2024 from 11:00 – 12:30 CEST

Introduction et résultats du cours

- Mme Liliane Flour (CNUCED)

Discussions thématiques

1. Protocole de crise et stratégie de communication
2. Gestion du personnel, bien être et résilience
3. Préparation technologique
4. Continuité du flux de marchandises

Études sur les transports maritimes

- M. Dominique Chantrel (CNUCED), Naviguer à travers les perturbations

Exemples de politiques et de mesures liées à la pandémie

- M. Marius Kodjane, Port Autonome d'Abidjan (PAA), Côte d'Ivoire

Conclusion et perspectives à venir

- M. Dominique Chantrel (CNUCED)

Agenda of the Spanish 2024 closing webinar

Held on 12 March 2024 from 15:00 – 16:30 CEST

Introducción y resultados del curso

- **Mark Assaf (UNCTAD)**
- **Maria Luz Jaureguiberry (UNCTAD)**

Temática

- 1. Protocolo de crisis y estrategia de comunicación – Sra. Francesca Antonelli (Autoridad Portuaria de Valencia)**
- 2. Gestión del personal, bienestar y resiliencia – Sr. Rafael Company (Fundación Valenciaport)**
- 3. Preparación tecnológica – Sr. Rubén Marín (Autoridad Portuaria de Valencia)**
- 4. Continuidad del flujo de carga – Sr. Rubén Marín (Autoridad Portuaria de Valencia)**

Experiencias en América Latina

- **Rogelio Espinosa Gama (México)**

Conclusiones

- **Mark Assaf (UNCTAD)**

Agenda of the English 2023 closing webinar

Held on 28 March 2023 from 14:00 – 15:30 CEST

Introduction and feedback on the course

- **Introductory remarks – Mr. Mark Assaf (UNCTAD)**
- **Course results and feedback – Mr. Tomasz Kulaga (UNCTAD)**

Thematic discussions

- 5. Crisis protocol and communication strategy – Ms. Francesca Antonelli (Valenciaport)**
- 6. Staff management, wellbeing and resilience – Mr. Rafael Company (Valenciaport Foundation)**
- 7. Technology preparedness – Mr. Rubén Marín (Valenciaport)**
- 8. Cargo flow continuity – Mr. Rubén Marín (Valenciaport)**

Presentations on national experiences

- **Mr. Bryan Habib Gautama, Directorate General Customs and Excise, Indonesia**
- **Mr. Kais Alsuhiemat, Head of Maritime Safety & Accident Investigation, Jordan Maritime Commission**
- **Mr. Sujangi Jaafar, HSSE Department, SPT Services Sdn. Bhd. (SPTS), Malaysia**

Policy brief presentation

- **Mr. John Moore**

Wrap up and way forward

- **Mr. Mark Assaf (UNCTAD)**

Agenda of the French 2023 closing webinar

Held on 30 March 2023 from 11:00 – 12:30 CEST

Introduction et résultats du cours

- **M. Mark Assaf, M. Dominique Chantrel & Mme Amélie Cournoyer (CNUCED)**

Discussions thématiques – Mme Elodie BIANCO (Port de Marseille-Fos)

- 5. Protocole de crise et stratégie de communication**
- 6. Gestion du personnel, bien être et résilience**
- 7. Préparation technologique**
- 8. Continuité du flux de marchandises**

Études sur les transports maritimes : Naviguer à travers les perturbations

- **Mme Hassiba Benamara (CNUCED)**

Exemples de politiques et de mesures liées à la pandémie

- **M. Mamadou SARR, Responsable du bien-être et conditions de travail, Port Autonome de Dakar (PAD), Sénégal**
- **Mme Pauline Catraye, Point Focal Genre/Analyste programmeur, Port Autonome de Cotonou (PAC), Bénin**
- **M. Komi Dosseh Danleme, Chef section patrimoine immobilier, Port Autonome de Lomé (PAL), Togo**

Conclusion et perspectives à venir

- **M. Mark Assaf, M. Dominique Chantrel (CNUCED)**

Agenda of the Spanish 2023 closing webinar

Held on 30 March 2023 from 15:00 - 16:00 CEST

Introducción

- **Gonzalo Ayala (UNCTAD)**

Temática

- 5. Protocolo de crisis y estrategia de comunicación – Sra. Francesca Antonelli (Autoridad Portuaria de Valencia)**
- 6. Gestión del personal, bienestar y resiliencia – Sr. Rafael Company (Fundación Valenciaport)**
- 7. Preparación tecnológica – Sr. Rubén Marín (Autoridad Portuaria de Valencia)**
- 8. Continuidad del flujo de carga – Sr. Rubén Marín (Autoridad Portuaria de Valencia)**

Transporte Marítimo – Navegando en aguas turbulentas

- **Luisa Rodriguez (UNCTAD)**

Experiencias en América Latina

- **Ana Suriel (República Dominicana)**
- **Roger Eduardo Catpo Chuchon (Perú)**
- **Dra. Maite Duque (Venezuela)**

Conclusiones

- **Gonzalo Ayala (UNCTAD)**

Agenda of the English 2022 closing webinar

Held on 30 March 2022 from 41:00-15:30 CEST

Introduction and feedback on the course

- **Introductory remarks – Mr. Mark Assaf (UNCTAD)**
- **Course results and feedback – Ms. Amélie Cournoyer (UNCTAD)**

Thematic discussions

- 9. Crisis protocol and communication strategy – Ms. Francesca Antonelli (Valenciaport)**
- 10. Staff management, wellbeing and resilience – Mr. Rafael Company (Valenciaport Foundation)**
- 11. Technology preparedness – Mr. Rubén Marín (Valenciaport)**
- 12. Cargo flow continuity – Mr. Rubén Marín (Valenciaport)**

Presentations on national experiences

- **Mr. Bryan Habib Gautama, Directorate General Customs and Excise, Indonesia**
- **Mr. Kais Alsuhiemat, Head of Maritime Safety & Accident Investigation, Jordan Maritime Commission**
- **Mr. Sujangi Jaafar, HSSE Department, SPT Services Sdn. Bhd. (SPTS), Malaysia**

Policy brief presentation

- **Mr. John Moore**

Wrap up and way forward

- **Mr. Mark Assaf (UNCTAD)**

Agenda of the French 2022 closing webinar

Held on 31 March 2022 from 14:00 – 15:30 CEST

Introduction – M. Dominique CHANTREL (CNUCED)

- **Remarques introductives**
- **Retour et résultats du cours**

Discussions thématiques – Mme Elodie BIANCO (Port de Marseille-Fos)

- 9. Protocole de crise et stratégie de communication**
- 10. Gestion du personnel, bien être et resilience**
- 11. Préparation technologique**
- 12. Continuité du flux de marchandises**

Echanges d'expériences nationales

- **M. Abdoul-Razak DERMAN, Alliance pour la Promotion du Port de Lomé (A2PL), Togo**
- **Mme EFFI née KAUPHY Elisabeth Krougbo Nadège et M. Angelo François GNANGO, Port Autonome d'Abidjan (PAA), Côte d'Ivoire**
- **M. SARR Mamadou, Responsable du bien-être et conditions de travail, Port Autonome de Dakar (PAD), Sénégal**
- **Mme RAKOTOARIMALALA Holinirina Eddith Marinah, Société du Port à Gestion Autonome de Toamasina (SPAT), Madagascar**

Synthèse des recommandations – Mme Elodie BIANCO (Port de Marseille-Fos)

Conclusion et perspectives à venir – M. Dominique CHANTREL (CNUCED)

Agenda of the Spanish 2022 closing webinar

Held on 29 March 2022 from 14:00-15:30 CEST

Introducción

- **Gonzalo Ayala (UNCTAD)**

Temática

- 13. Protocolo de crisis y estrategia de comunicación – Sra. Francesca Antonelli (Autoridad Portuaria de Valencia)**
- 14. Gestión del personal, bienestar y resiliencia – Sr. Rafael Company (Fundación Valenciaport)**
- 15. Preparación tecnológica – Sr. Rubén Marín (Autoridad Portuaria de Valencia)**
- 16. Continuidad del flujo de carga – Sr. Rubén Marín (Autoridad Portuaria de Valencia)**

Experiencias en América Latina

- **Elar Salvador Granda – Autoridad Portuaria Nacional - Perú**
- **María Fernanda Arévalo – Ministerio de Comercio Exterior – Costa Rica**
- **Diego Rodrigo Di Rocca - Argentina**

Lecciones aprendidas

- **Sr. Vicente Jimenez (Consultor de la UNCTAD)**

Conclusiones

- **Gonzalo Ayala (UNCTAD)**

Agenda of the English 2021 Pilot closing webinar

Held on 27 July 2021 from 41:00-15:30 CEST

Introduction and feedback on the course

- **Introductory remarks – Mr. Mark Assaf (UNCTAD)**
- **Course results and feedback – Mr. Dominique Chantrel (UNCTAD)**

Thematic discussions

- 13. Crisis protocol and communication strategy – Ms. Francesca Antonelli (Valenciaport)**
- 14. Staff management, wellbeing and resilience – Mr. Rafael Company (Valenciaport Foundation)**
- 15. Technology preparedness – Mr. Rubén Marín (Valenciaport)**
- 16. Cargo flow continuity – Mr. Rubén Marín (Valenciaport)**

Best practices and policy recommendations

- **Implemented protocols in your ports – Mr. Dominique Chantrel (UNCTAD)**
- **“Hidden gems” from “the collective effort on suggested policy recommendations” – Mr. John Moore (Port specialist)**

Wrap up and way forward

- **Mr. Mark Assaf (UNCTAD)**

Annex 4: Participants of the e-learning courses by country

The following table summarizes participants and certified participants of all the activities combined (DACUM, pilot, launching webinar, e-learning courses in English, French, and Spanish) with the breakdown of participants' country of residence and gender.

#	Country name or area	Participants				Certificates			
		T	M	F	O	T	M	F	O
1	Afghanistan	3	3	0	0	0	0	0	0
2	Albania	4	3	1	0	3	3	0	0
3	Algeria	12	10	2	0	8	7	1	0
4	American Samoa	1	0	1	0	1	0	1	0
5	Angola	47	26	21	0	19	11	8	0
6	Anguilla	8	1	7	0	8	1	7	0
7	Antigua and Barbuda	5	3	2	0	4	2	2	0
8	Argentina	60	30	30	0	30	13	17	0
9	Aruba	1	1	0	0	0	0	0	0
10	Australia	9	6	3	0	2	2	0	0
11	Austria	1	0	1	0	0	0	0	0
12	Azerbaijan	6	2	4	0	4	0	4	0
13	Bahamas	3	0	3	0	1	0	1	0
14	Bahrain	1	1	0	0	0	0	0	0
15	Bangladesh	22	20	2	0	11	10	1	0
16	Barbados	23	12	11	0	16	9	7	0
17	Belgium	7	2	5	0	1	0	1	0
18	Belize	6	3	3	0	5	3	2	0
19	Benin	85	49	36	0	44	27	17	0
20	Bermuda	1	0	1	0	1	0	1	0
21	Bolivia (Plurinational State of)	73	61	12	0	42	36	6	0
22	Bonaire, Sint Eustatius and Saba	1	1	0	0	1	1	0	0
23	Botswana	7	6	1	0	4	4	0	0
24	Brazil	70	43	27	0	31	19	12	0
25	Brunei Darussalam	2	2	0	0	1	1	0	0
26	Bulgaria	2	0	2	0	2	0	2	0
27	Burkina Faso	17	15	2	0	4	4	0	0
28	Burundi	18	14	4	0	8	6	2	0
29	Cabo Verde	23	5	18	0	17	4	13	0
30	Cambodia	43	35	8	0	20	18	2	0

#	Country name or area	Participants				Certificates			
		T	M	F	O	T	M	F	O
31	Cameroon	196	101	95	0	80	40	40	0
32	Canada	2	2	0	0	0	0	0	0
33	Central African Republic	1	1	0	0	0	0	0	0
34	Chad	1	1	0	0	0	0	0	0
35	Chile	44	30	13	1	39	28	10	1
36	China	25	15	10	0	11	7	4	0
37	China, Hong Kong SAR	3	3	0	0	2	2	0	0
38	China, Macao SAR	3	2	1	0	1	0	1	0
39	China, Taiwan Province of	2	2	0	0	1	1	0	0
40	Colombia	59	32	27	0	21	12	9	0
41	Comoros	6	4	2	0	1	1	0	0
42	Congo	15	8	7	0	8	7	1	0
43	Cook Islands	6	1	5	0	5	1	4	0
44	Costa Rica	48	24	24	0	24	13	11	0
45	Côte d'Ivoire	107	78	29	0	53	36	17	0
46	Croatia	2	2	0	0	2	2	0	0
47	Cuba	28	14	14	0	20	10	10	0
48	Czechia	2	1	1	0	0	0	0	0
49	Democratic Republic of the Congo	12	9	3	0	3	1	2	0
50	Denmark	3	2	1	0	1	1	0	0
51	Djibouti	40	34	6	0	19	16	3	0
52	Dominica	91	43	48	0	66	27	39	0
53	Dominican Republic	76	40	36	0	38	18	20	0
54	Ecuador	69	42	27	0	33	18	15	0
55	Egypt	25	16	9	0	14	11	3	0
56	El Salvador	24	20	4	0	20	17	3	0
57	Equatorial Guinea	1	1	0	0	1	1	0	0
58	Eswatini	1	1	0	0	0	0	0	0
59	Ethiopia	6	5	1	0	2	2	0	0
60	Fiji	23	9	14	0	7	2	5	0
61	Finland	1	0	1	0	0	0	0	0
62	France	19	10	9	0	7	4	3	0
63	Gabon	26	20	6	0	13	9	4	0
64	Gambia	18	17	1	0	10	9	1	0

#	Country name or area	Participants				Certificates			
		T	M	F	O	T	M	F	O
65	Georgia	1	1	0	0	0	0	0	0
66	Germany	16	10	6	0	5	5	0	0
67	Ghana	192	135	57	0	87	56	31	0
68	Gibraltar	2	2	0	0	1	1	0	0
69	Greece	8	5	3	0	3	1	2	0
70	Grenada	9	5	4	0	4	2	2	0
71	Guatemala	62	25	37	0	26	9	17	0
72	Guinea	29	21	8	0	14	12	2	0
73	Guinea-Bissau	2	2	0	0	0	0	0	0
74	Guyana	35	21	14	0	25	17	8	0
75	Haiti	84	57	27	0	56	35	21	0
76	Honduras	14	5	9	0	10	4	6	0
77	Hungary	2	1	1	0	1	1	0	0
78	India	58	42	16	0	27	19	8	0
79	Indonesia	515	387	128	0	291	223	68	0
80	Iran (Islamic Republic of)	12	9	3	0	6	5	1	0
81	Iraq	8	8	0	0	4	4	0	0
82	Ireland	10	9	1	0	3	3	0	0
83	Isle of Man	2	2	0	0	2	2	0	0
84	Italy	14	8	6	0	6	3	3	0
85	Jamaica	41	20	21	0	28	15	13	0
86	Japan	2	2	0	0	2	2	0	0
87	Jersey	1	0	1	0	1	0	1	0
88	Jordan	28	18	10	0	17	9	8	0
89	Kazakhstan	1	0	1	0	0	0	0	0
90	Kenya	95	54	41	0	37	21	16	0
91	Kiribati	7	7	0	0	4	4	0	0
92	Kuwait	12	12	0	0	9	9	0	0
93	Lao People's Democratic Republic	2	2	0	0	1	1	0	0
94	Lebanon	1	1	0	0	1	1	0	0
95	Lesotho	3	1	2	0	3	1	2	0
96	Liberia	6	4	2	0	1	1	0	0
97	Libya	1	1	0	0	1	1	0	0
98	Madagascar	142	80	62	0	93	52	41	0

#	Country name or area	Participants				Certificates			
		T	M	F	O	T	M	F	O
99	Malawi	17	12	5	0	9	6	3	0
100	Malaysia	70	45	25	0	39	27	12	0
101	Maldives	17	13	4	0	10	8	2	0
102	Mali	9	6	3	0	2	2	0	0
103	Marshall Islands	1	0	1	0	1	0	1	0
104	Mauritania	21	19	2	0	15	14	1	0
105	Mauritius	53	38	15	0	38	25	13	0
106	Mexico	126	67	59	0	56	31	25	0
107	Montenegro	2	0	2	0	0	0	0	0
108	Montserrat	3	1	2	0	1	0	1	0
109	Morocco	27	17	10	0	4	2	2	0
110	Mozambique	9	6	3	0	2	1	1	0
111	Myanmar	10	4	6	0	8	3	5	0
112	Namibia	61	30	31	0	34	17	17	0
113	Nauru	2	1	1	0	0	0	0	0
114	Nepal	1	1	0	0	0	0	0	0
115	Netherlands	9	6	3	0	5	3	2	0
116	Nicaragua	11	8	3	0	4	2	2	0
117	Niger	6	6	0	0	0	0	0	0
118	Nigeria	196	144	52	0	106	82	24	0
119	Niue	4	2	2	0	2	1	1	0
120	Oman	2	1	1	0	1	0	1	0
121	Pakistan	33	25	8	0	22	15	7	0
122	Palau	1	1	0	0	0	0	0	0
123	Panama	21	10	11	0	13	5	8	0
124	Papua New Guinea	17	7	10	0	5	2	3	0
125	Paraguay	5	2	3	0	1	0	1	0
126	Peru	310	189	121	0	134	85	49	0
127	Philippines	885	487	398	0	573	308	265	0
128	Poland	4	2	2	0	3	2	1	0
129	Portugal	4	1	3	0	2	1	1	0
130	Puerto Rico	2	1	1	0	1	0	1	0
131	Qatar	6	2	4	0	3	1	2	0
132	Republic of Korea	6	3	3	0	5	3	2	0

#	Country name or area	Participants				Certificates			
		T	M	F	O	T	M	F	O
133	Romania	1	0	1	0	1	0	1	0
134	Russian Federation	8	7	1	0	6	5	1	0
135	Rwanda	7	7	0	0	2	2	0	0
136	Saint Kitts and Nevis	12	3	9	0	8	2	6	0
137	Saint Lucia	19	15	4	0	14	10	4	0
138	Saint Vincent and the Grenadines	6	2	4	0	4	1	3	0
139	Samoa	1	1	0	0	1	1	0	0
140	Sao Tome and Principe	2	1	1	0	0	0	0	0
141	Saudi Arabia	37	34	3	0	31	28	3	0
142	Senegal	52	27	25	0	23	13	10	0
143	Serbia	9	5	3	1	8	4	3	1
144	Seychelles	6	2	4	0	6	2	4	0
145	Sierra Leone	1	0	1	0	1	0	1	0
146	Singapore	6	5	1	0	4	3	1	0
147	Solomon Islands	17	15	2	0	9	9	0	0
148	Somalia	35	33	2	0	15	15	0	0
149	South Africa	11	6	5	0	3	3	0	0
150	South Sudan	5	5	0	0	1	1	0	0
151	Spain	51	30	21	0	21	12	9	0
152	Sri Lanka	12	10	2	0	5	5	0	0
153	Sudan	3	2	1	0	0	0	0	0
154	Suriname	5	4	1	0	4	3	1	0
155	Sweden	20	11	9	0	10	5	5	0
156	Switzerland	13	10	3	0	4	3	1	0
157	Syrian Arab Republic	1	0	1	0	1	0	1	0
158	Thailand	8	3	4	1	4	1	3	0
159	Timor-Leste	5	3	2	0	2	2	0	0
160	Togo	99	81	18	0	56	43	13	0
161	Tonga	3	1	2	0	0	0	0	0
162	Trinidad and Tobago	32	16	16	0	18	8	10	0
163	Tunisia	19	12	7	0	6	3	3	0
164	Türkiye	13	9	4	0	7	4	3	0
165	Turkmenistan	2	1	1	0	0	0	0	0
166	Turks and Caicos Islands	2	2	0	0	2	2	0	0

#	Country name or area	Participants				Certificates			
		T	M	F	O	T	M	F	O
167	Tuvalu	1	1	0	0	1	1	0	0
168	Uganda	9	7	2	0	3	3	0	0
169	Ukraine	8	2	6	0	7	2	5	0
170	United Arab Emirates	7	6	1	0	3	3	0	0
171	United Kingdom	30	17	13	0	17	10	7	0
172	United Republic of Tanzania	88	58	30	0	42	26	16	0
173	United States of America	27	18	9	0	12	9	3	0
174	Uruguay	40	26	14	0	20	13	7	0
175	Vanuatu	11	8	3	0	2	1	1	0
176	Venezuela (Bolivarian Republic of)	125	65	60	0	65	30	35	0
177	Viet Nam	70	45	25	0	38	25	13	0
178	Zambia	15	11	4	0	4	3	1	0
179	Zimbabwe	11	2	9	0	4	1	3	0
	International organisations	48	26	22	0	11	5	6	0
Total		5927	3713	2211	3	3164	1964	1198	2

Annex 5: The most voted policy recommendations shared by participants

Author	Proposal	Votes
Ms. Natasha Pereira (Venezuela)	To improve technological resources in order to reduce the presence of workers in port through a home base where most activities could be followed up on and actions taken. Blockchain is a useful tool regarding administrative measures for a more suitable management in a pandemic situation.	68
Mr. John Moore (Ireland)	Reduction of access points in the port area to strengthen controls and rationalise staff assignments providing digital passes for essential workers, temperature checks, health COVID pass, antigen testing, PPE equipment and hydrogel availability at each access point including sanitizing routines.	48
Mr. Mohamad Rosni Othman (Malaysia)	The port authority should create and execute SOP (standard operating procedure) on a workplace pandemic preparedness plan along with business continuity plans. The stakeholders, employees, port emergency team members that deal with the daily port operations shall familiarise with the Covid19 SOP, the awareness and preparedness should conduct exercises monthly/annually, if not more frequently.	43
Ms. Bernelou Joven (Philippines)	Provision of free-covid testing to employees with symptoms.	36
Mr. Dixon Gonzales (Philippines)	1. Constant collaboration with Health Authorities and Top Management for implementation of policies rooted from the guidelines provided by the former to mitigate the possible transmission. 2. Taking advantage of the benefits of technology in the organization using Electronic/Online Port System on payments and other port transactions. Moreover, allowing personnel to be on a work-from-home scheme to carry out task efficiently and to minimize physical contact. Thus, ensuring that the transport of goods and services remains unhampered. 3. Incorporating a crisis protocol team for safety threats to establish an Incident Management Team including the crafting of a contingency plan. 4. Vaccination of all employees with prioritization of those on the frontline services. 5. Preparing personnel through trainings and providing PPEs in the performance of duty. 6. Conducting coordination meetings with other government agencies and port stakeholders to discuss matters relating to the pandemic including the harmonized implementation of health and safety protocols. 7. Reorientation of facilities to suit with established minimum health and safety protocols.	34