TRAIN FOR TRADE

UNITED NATIONS
UNCTAD

Special Course on Building Port Resilience Against Pandemics (BPR)

Participant manual

Section 4: Cargo Flow Continuity

Strenghtening Knowledge
and skills through **innovative approaches**
for sustainable economic development

Development Account
Department of Economic and Social Affairs

Irish Aid
Government of Ireland
Rialtas na hÉireann

learn.unctad.org

Table of Contents

Figures and tables

Cover photo: Tom Fisk / Pexel

4. CARGO FLOW CONTINUITY

It is possible that the circumstances created by the pandemic requires the prioritization of essential port activities to guarantee the supply of essential goods towards the community and society, and to help contain the pandemic.

This section presents guidelines to guarantee the continuity of the cargo and passenger flow through the port. The objectives of the section are to be able to:

- Assess and prevent disruption scenarios for cargoes and passengers;
- Identify legal and financial risks related to these disrupting scenarios; and
- Plan and design appropriate mitigation measures against the disruption of the flow of cargo.

4.1 Flows of goods

In a pandemic situation, people still need supplies of clothes, food, medicines, medical equipment, chemical products, and in some cases transportation from one place to another. These needs depend on international maritime supply chains, which in turn are heavily dependent on port activities, and on how the flows of goods are conducted in the ports.

In this regard, it is extremely important to establish actions that ensure that the flow of cargo through the world's ports remains fluid. Accumulations at warehouses, a lack of truck drivers, and already imported goods that companies cannot sell, can prompt cargo owners to leave cargo at the ports. That causes delays and disruptions that become a bottleneck in the supply chain and trigger new delays or disruptions elsewhere, severely affecting the movement of food and critical supplies. The reliability of the global supply chain depends on the continuous flow of goods, especially in the ports. If ports become congested, the entire system melts down.

Shipping companies and other logistic agents can offer mitigation solutions (e.g. extended transit times, storage in transit), but the whole port community must be committed to keeping cargo moving through the ports.

4.1.1 Tracing of goods & people

Supply chain and logistics activities require permanent monitoring and the ability to track and trace goods, to ensure the secure management of the different logistics operations, and the monitoring of the location of the cargo until it reaches the final destination. In port terminals, particularly in container terminals, tracking and tracing cargo is already an essential activity for the provision of the services.

During a pandemic, tracing of goods and people becomes a critical factor for several reasons:

- Need to identify and control specific goods, such as food or medical supplies.
- Increased risk of disruptions in the cargo flow and in the terminal operation systems.

- Possibility of infected cargo, which would launch a protocol of communications and inspections all along the affected supply chain. In the case of passengers or crew, this tracing is even more important: depending on the transmission rate of the disease, tracking risky passengers in the days after they leave the port will be key to preventing mass contagions.

Thus, in a pandemic scenario, the Health and Safety Committee, as defined in Section 1, must define the measures in order to:

1. Make sure the tracing system is robust enough

Whether it is in a cargo terminal or a passenger terminal, information systems must be reinforced to make sure that tracing information is never lost or corrupted.

In small terminals or bulk cargo terminals, the tracing task may rely on very few people (sometimes on a single person) and on simple information systems (e.g. an Excel spreadsheet saved on somebody's computer). In these cases, the technology preparedness and the staff resilience addressed in sections 2 and 3 are probably easier to implement. However, it is often the case that tracing is not considered an important issue, which can lead to breaks in the tracing information.

In big passenger terminals, and container or RORO terminals, with thousands of passengers embarking and disembarking, or hundreds of different cargo units being loaded and unloaded in every vessel call, a risk assessment must be conducted to determine what part of the operations need to be reinforced to avoid disruptions in the flow of cargo and people and enable tracing.

Risks regarding disruptions to the flow of cargo and people to be considered in the assessment:

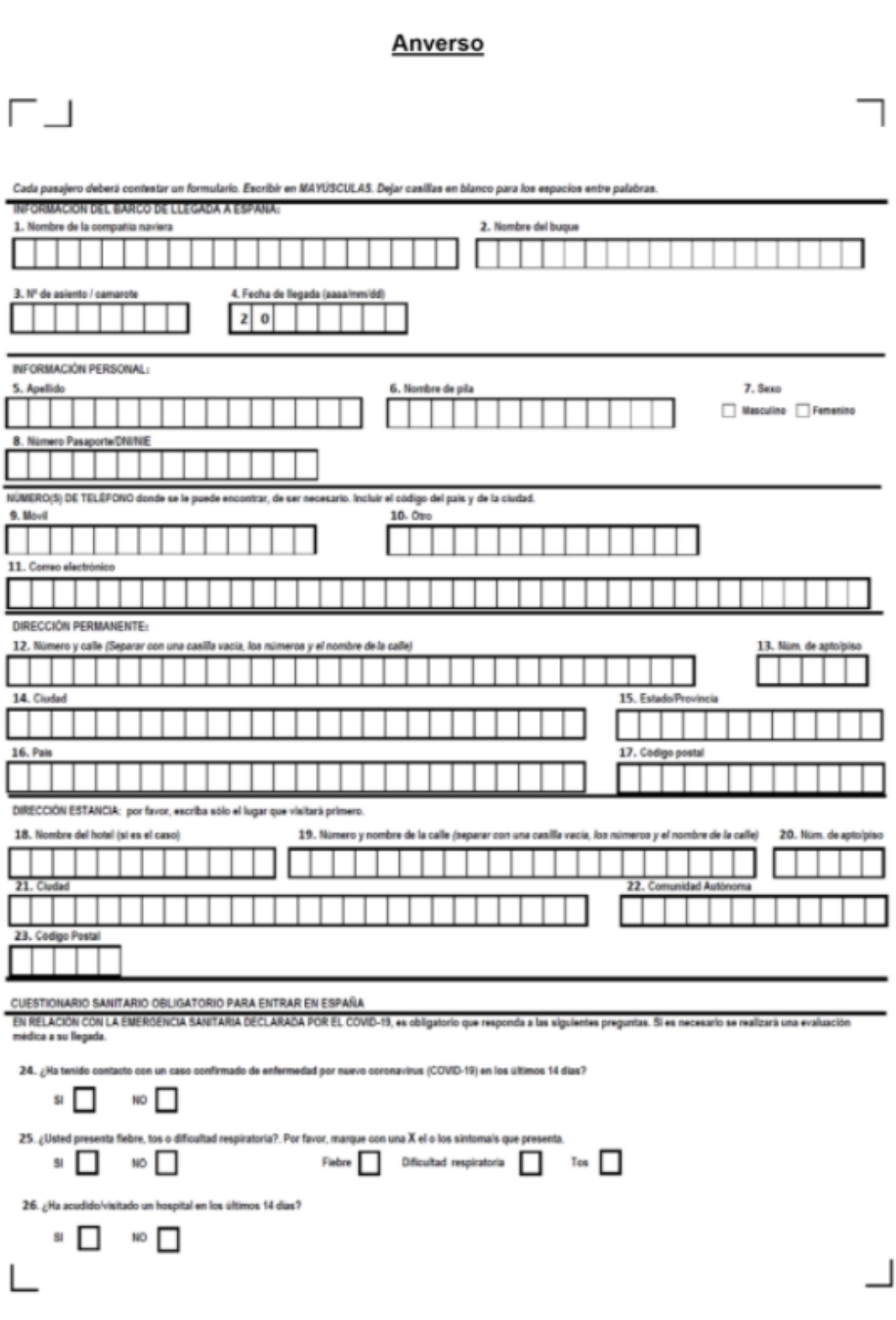
- Unavailability of the person(s) usually in charge of the tracing systems, due to illness or pandemic-related mobility restrictions
- Failure of the information systems, and delay in their recovery, due to the problems that the pandemic may cause to the IT supplier.
- Unexpected change in the operations planning, due to increasing absenteeism in the labour force.
- Mistakes made by unexperienced staff, who may have to replace absent colleagues.
- Unreliable communications with the health authority, who is responsible for implementing the healthcare decisions according to International Health Regulations and the assessment of the Maritime Declaration of Heath (MDH).

2. Implement additional measures for tracking the goods and people transiting through the terminal

Depending on the specific features of the pandemic in question, measures may have to be taken to follow the path of cargo and people for a certain number of days. These kinds of measures should usually be integrated into a major tracking system such as:

- The shipping company system, when it comes to cargo.
- Health authorities' tracking procedures, when it comes to people. In this case, contact detail forms could be mandatory for disembarking passengers and seafarers.

Figure 14: Example of a form for passengers from the Spanish Government



Anverso

Cada pasajero deberá contestar un formulario. Escribir en MAYUSCULAS. Dejar casillas en blanco para los espacios entre palabras.

INFORMACIÓN DEL BARCO DE LLEGADA A ESPAÑA:

1. Nombre de la compañía naviera
2. Nombre del buque
3. Nº de asiento / camarote
4. Fecha de llegada (aaaa/mm/dd) 2 0

INFORMACIÓN PERSONAL:

5. Apellido
6. Nombre de pila
7. Sexo ☐ Masculino ☐ Femenino
8. Número Pasaporte/DNI/NIE

NÚMERO(S) DE TELÉFONO donde se le puede encontrar, de ser necesario. Incluir el código del país y de la ciudad.

9. Móvil
10. Otro
11. Correo electrónico

DIRECCIÓN PERMANENTE:

12. Número y calle *(Separar con una casilla vacía, los números y el nombre de la calle)*
13. Núm. de apto/piso
14. Ciudad
15. Estado/Provincia
16. País
17. Código postal

DIRECCIÓN ESTANCIA: por favor, escriba sólo el lugar que visitará primero.

18. Nombre del hotel (si es el caso)
19. Número y nombre de la calle *(separar con una casilla vacía, los números y el nombre de la calle)*
20. Núm. de apto/piso
21. Ciudad
22. Comunidad Autónoma
23. Código Postal

CUESTIONARIO SANITARIO OBLIGATORIO PARA ENTRAR EN ESPAÑA

EN RELACIÓN CON LA EMERGENCIA SANITARIA DECLARADA POR EL COVID-19, es obligatorio que responda a las siguientes preguntas. Si es necesario se realizará una evaluación médica a su llegada.

24. ¿Ha tenido contacto con un caso confirmado de enfermedad por nuevo coronavirus (COVID-19) en los últimos 14 días?
SI ☐ NO ☐

25. ¿Usted presenta fiebre, tos o dificultad respiratoria?. Por favor, marque con una X el o los síntoma/s que presenta.
SI ☐ NO ☐ Fiebre ☐ Dificultad respiratoria ☐ Tos ☐

26. ¿Ha acudido/visitado un hospital en los últimos 14 días?
SI ☐ NO ☐

Reverso

27. ¿Ha visitado algún mercado de animales vivos, en los últimos 14 días?

SI ☐ NO ☐

ANTECEDENTES DE VIAJES

28. Por favor, indique el país de inicio de su viaje

29. Por favor, indique todos los países por los que ha viajado/transitado en los últimos 14 días

(1)
(2)
(3)
(4)

30. Motivo del viaje. Por favor, marque una opción

Turismo ☐ Trabajo ☐ Visita Familiar ☐ Misión Especial ☐ Cooperación ☐ Otro ☐

DECLARACIÓN RESPONSABLE

Me comprometo a que si durante los 14 días posteriores a la entrada en España presento síntomas de infección respiratoria aguda (fiebre, tos o dificultad respiratoria), me auto aislaré en el domicilio/lugar de residencia, realizando una auto vigilancia de los síntomas del coronavirus y me pondré en contacto telefónicamente con las autoridades sanitarias competentes.

Me comprometo a llevar a cabo aquellas indicaciones y medidas que me indiquen las autoridades sanitarias.

Y para que así conste a los efectos oportunos, confirmo la veracidad de la información proporcionada.

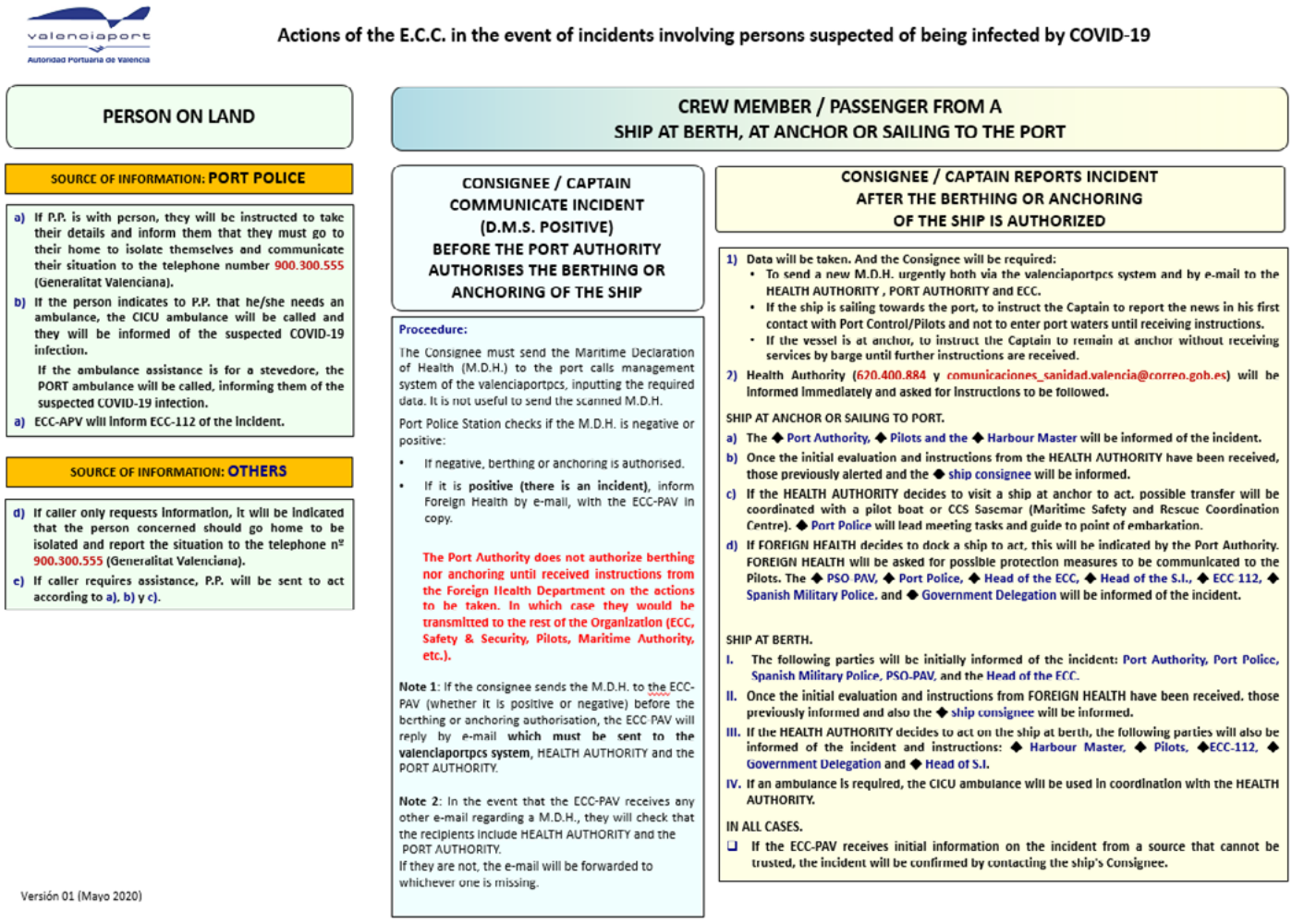
Marcar para aceptar: ☐

Fecha (aaaa/mm/dd):

2 0

Sus datos personales serán tratados de acuerdo con el Reglamento (UE) 2016/679 del Parlamento Europeo y del Consejo, de 27 de abril de 2016, relativo a la protección de las personas físicas en lo que respecta al tratamiento de sus datos personales y a la libre circulación de estos datos y la Ley Orgánica 3/2018, de 5 de diciembre, de Protección de Datos Personales y Garantía de los Derechos Digitales y otras reglamentaciones relacionadas.

Figure 15: Emergency Centre protocol from the Port Authority of Valencia



valenciaport
Autoridad Portuaria de Valencia

Actions of the E.C.C. in the event of incidents involving persons suspected of being infected by COVID-19

PERSON ON LAND

SOURCE OF INFORMATION: PORT POLICE

a) If P.P. is with person, they will be instructed to take their details and inform them that they must go to their home to isolate themselves and communicate their situation to the telephone number 900.300.555 (Generalitat Valenciana).
b) If the person indicates to P.P. that he/she needs an ambulance, the CICU ambulance will be called and they will be informed of the suspected COVID-19 infection.
If the ambulance assistance is for a stevedore, the PORT ambulance will be called, informing them of the suspected COVID-19 infection.
a) ECC-APV will inform ECC-112 of the incident.

SOURCE OF INFORMATION: OTHERS

d) If caller only requests information, it will be indicated that the person concerned should go home to be isolated and report the situation to the telephone nº 900.300.555 (Generalitat Valenciana).
c) If caller requires assistance, P.P. will be sent to act according to a), b) y c).

Versión 01 (Mayo 2020)

CREW MEMBER / PASSENGER FROM A SHIP AT BERTH, AT ANCHOR OR SAILING TO THE PORT

CONSIGNEE / CAPTAIN COMMUNICATE INCIDENT (D.M.S. POSITIVE) BEFORE THE PORT AUTHORITY AUTHORISES THE BERTHING OR ANCHORING OF THE SHIP

Procedure:

The Consignee must send the Maritime Declaration of Health (M.D.H.) to the port calls management system of the valenciaportpcs, inputting the required data. It is not useful to send the scanned M.D.H.

Port Police Station checks if the M.D.H. is negative or positive:

- If negative, berthing or anchoring is authorised.
- If it is **positive (there is an incident)**, inform Foreign Health by e-mail, with the ECC-PAV in copy.

The Port Authority does not authorize berthing nor anchoring until received instructions from the Foreign Health Department on the actions to be taken. In which case they would be transmitted to the rest of the Organization (ECC, Safety & Security, Pilots, Maritime Authority, etc.).

Note 1: If the consignee sends the M.D.H. to the ECC-PAV (whether it is positive or negative) before the berthing or anchoring authorisation, the ECC PAV will reply by e-mail **which must be sent to the valenciaportpcs system**, HEALTH AUTHORITY and the PORT AUTHORITY.

Note 2: In the event that the ECC-PAV receives any other e-mail regarding a M.D.H., they will check that the recipients include HEALTH AUTHORITY and the PORT AUTHORITY.
If they are not, the e-mail will be forwarded to whichever one is missing.

CONSIGNEE / CAPTAIN REPORTS INCIDENT AFTER THE BERTHING OR ANCHORING OF THE SHIP IS AUTHORIZED

1) Data will be taken. And the Consignee will be required:
   - To send a new M.D.H. urgently both via the valenciaportpcs system and by e-mail to the HEALTH AUTHORITY , PORT AUTHORITY and ECC.
   - If the ship is sailing towards the port, to instruct the Captain to report the news in his first contact with Port Control/Pilots and not to enter port waters until receiving instructions.
   - If the vessel is at anchor, to instruct the Captain to remain at anchor without receiving services by barge until further instructions are received.
2) Health Authority (620.400.884 y comunicaciones_sanidad.valencia@correo.gob.es) will be informed immediately and asked for instructions to be followed.

SHIP AT ANCHOR OR SAILING TO PORT.

a) The ◆ Port Authority, ◆ Pilots and the ◆ Harbour Master will be informed of the incident.
b) Once the initial evaluation and instructions from the HEALTH AUTHORITY have been received, those previously alerted and the ◆ ship consignee will be informed.
c) If the HEALTH AUTHORITY decides to visit a ship at anchor to act. possible transfer will be coordinated with a pilot boat or CCS Sasemar (Maritime Safety and Rescue Coordination Centre). ◆ Port Police will lead meeting tasks and guide to point of embarkation.
d) If FOREIGN HEALTH decides to dock a ship to act, this will be indicated by the Port Authority. FOREIGN HEALTH will be asked for possible protection measures to be communicated to the Pilots. The ◆ PSO PAV, ◆ Port Police, ◆ Head of the ECC, ◆ Head of the S.I., ◆ ECC 112, ◆ Spanish Military Police. and ◆ Government Delegation will be informed of the incident.

SHIP AT BERTH.

I. The following parties will be initially informed of the incident: Port Authority, Port Police, Spanish Military Police, PSO-PAV, and the Head of the ECC.
II. Once the initial evaluation and instructions from FOREIGN HEALTH have been received. those previously informed and also the ◆ ship consignee will be informed.
III. If the HEALTH AUTHORITY decides to act on the ship at berth, the following parties will also be informed of the incident and instructions: ◆ Harbour Master, ◆ Pilots, ◆ECC-112, ◆ Government Delegation and ◆ Head of S.I.
IV. If an ambulance is required, the CICU ambulance will be used in coordination with the HEALTH AUTHORITY.

IN ALL CASES.

❑ If the ECC-PAV receives initial information on the incident from a source that cannot be trusted, the incident will be confirmed by contacting the ship's Consignee.

Depending on the characteristics of the pandemic, and following health authorities' guidelines, there shall be designated areas (inside or outside the port) and protocols for isolation of the goods or for quarantine of people.

Some other conditions or restrictions may be applied, depending on the pandemic scenario, the health authorities' instructions, and the content of the Maritime Declaration of Health (MDH), such as:

- Encourage all ship crew to remain on board and not to disembark unless absolutely necessary or in the event of an emergency (e.g. to seek medical treatment).
- Deploy a team to conduct a body temperature check at the vessel gangway.
- Provide transportation for ship crew to submit the relevant documents in person and obtain clearance for shore leave from the Immigration Authority office, which is usually located outside of the port.

Figure 16: Example of a Maritime Declaration of Health

MARITIME DECLARATION OF HEALTH

To be completed and submitted to the competent authorities by the masters of ships arriving from foreign ports.

Submitted at the port of.....Date.....
Name of ship or inland navigation vessel .....Registration/IMO N°.....
Arriving from..... .....Sailing to.....
(Nationality)(Flag of vessel).....
Master's name.....
Gross tonnage (ships).....Tonnage (inland navigation vessels).....
Valid Sanitation Control Exemption/Control Certificate carried on board? Yes... ..No...
Issued at..... .....Date.....
Re-inspection required? Si... No...
Has ship/vessel visited an affected area identified by World Health Organization? Yes... No...
Port and date of visit.....
List ports of call from commencement of voyage with dates of departure, or within past thirty days, whichever is shorter:
.....
.....
.....
Upon request of the competent authority at the port of arrival, list crew members, passengers or other persons who have joined ship/vessel since international voyage began or within past thirty days, whichever is shorter, including all ports/countries visited in this period (add additional names to the attached schedule):
1) Name..... joined from: 1).....2).....3).....
2) Name..... joined from: 1).....2).....3).....
3) Name..... joined from: 1).....2).....3).....
Number of crew members on board.....
Number of passengers on board.....

Health questions

1) Has any person died on borrad during the voyage otherwise than as a result of accident? Yes... No...
If yes, state particulars in attached schedule. Total n° of deaths.....

2) Is there on board or has there been during the international voyage any case of disease which you suspect to be o fan infectious nature? Yes.... No... If yes, state particulars unattached schedule.

3) Has the total number of ill passengers during the voyage been greater than normal/expected? Yes... No....
How many ill persons?.....

4) Is there any ill person on board? Yes.... No.... If yes, state particulars in attached schedule.

5) Was a medical practitioner consulted? Yes... No... If yes, state particulars of medical treatment or advine provided in attached schedule.

6) Are you aware of any condition on board which may lead to infection or spread of disease? Yes... No... If yes, state particulars in attached schedule.

7) Has a sanitary measure (e.g. quarantine, isolation, disinfection or decontamination) been applied on board? Yes...
No...If yes, specify type, place and date.....

8) Have any stowaways been found on board? Yes... No... If yes, where did they join the ship (if known)? .....

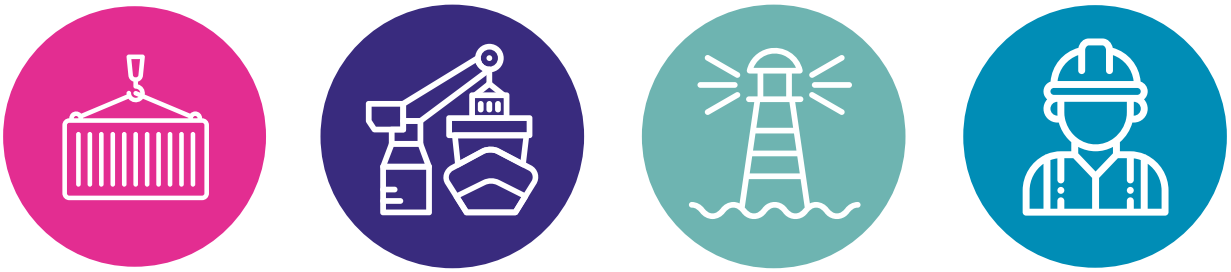
4.1.2 Assess potential disruptions of port operations

Port operations are a fundamental component of the cargo flow, and thus need to be guaranteed in a pandemic situation. Even if the berthing of vessels and cargo operations may take longer than usual, the cargo flow must not be stopped or slowed down to the point where the supply chain becomes unsustainable.

It is important to highlight that all the actors in the port community are involved in the challenge, not only the terminals or the shipping companies; any failure in any part of the port operations may lead to a disruption in the supply chain.

A general risk assessment taking into consideration all the stakeholders and factors must be done prior to the pandemic (in a normal situation), and then must be rapidly adjusted to the specific situation by the crisis response teams, to guide short term actions and understand mid-term impact.

Stakeholders to be considered in the assessment



Port agents and freight forwarders	Pilots, tugs and mooring companies	Security forces, Customs and access control authorities	Terminals, stevedoring companies and pools supplying labour force
	Other port services (Marpol, fuel suppliers, etc.)	Port authorities and Harbour Master office	
	Road and railway transport companies	Sanitary authorities involved in the Border Post Control	

The evaluations must not only take into account the main business of the organization, but also the activity performed by all of its contracted services such as security, maintenance, IT suppliers, cleaning and disinfection, etc.

Different factors must be considered in the assessment, to identify the challenges that the different stakeholders of the port are facing, and what actions can be taken by the organization to maximize the collective benefits.

Disruption factors to be considered in the assessment:

- Unexpected absence of key personnel (operations manager, pilot, etc.), due to illness or civil mobility restrictions.
- Unavailability, temporary or permanent, of the information systems.
- Detention of vessels at port because of a positive MDH or any sanitary measure.
- Delays caused by requirements of any authority (e.g. health department officials to board the vessel to check ship crew, immigrations officials to apply restrictions to certain countries of origin, customs to check additional information on the cargo, etc.).
- Exhaustive cleaning protocols of machinery and facilities during the shift changes.
- Restrictions to road traffic.
- Accumulation of volumes of cargo at the port, importers being unable to take the cargo to their warehouses, and the consequent potential collapse for lack of space.
- Machinery failures.

Different methods may be applied to conduct the assessment, such as a risk assessment matrix, a "what if…" methodology, an FMEA (Failure Mode and Effective Analysis), or any other analysis chosen by the crisis response teams. No matter the tool chosen, it must lead to a clear action proposal.

4.2 Priority of goods, facilitation and control measures

Throughout this section, the importance of ports in the supply chain has been emphasized, especially in times of pandemics. A pandemic has various repercussions on society: it has effects on the global population's health and safety and consequences for different industries and the economy in general. Therefore, in addition to health measures and basic support, we must not lose sight of the impact on other activities that make up the productive, industrial and commercial fabric of a globalized world.

Due to the complexity of the operations and interactions of the productive systems, it is difficult to establish priorities of some goods over others (consider the different components that may be involved in the preparation of medicines and application instruments). Thus, prioritizing the passage of some goods over others is not a simple decision to make, although it may become unavoidable in a pandemic. This is due to the emergency supply of goods and components that are particularly vital at that point in time, and to avoid delays in the delivery time, disruptions in the cargo flow, and bottlenecks in the supply chain. .

In such a situation, it is possible to take measures to mitigate the effects on essential cargo such as food, medicines or medical equipment. Due to the implications of these types of decisions and because they affect multiple interests and previously established commitments, the establishment of cargo priorities must have a sound legal basis and be backed by regulatory provisions and/or government decisions that support these choices in the event of possible claims from those affected.

A possible priority for loading could be as follows: in locations with container terminals, a "green lane" may be created to prioritize cargo throughout the entire port logistics chain, including docking preference of the ship in the queue, availability of pilots and tugboats, cargo handling, access to trucks, and authorization for vehicles to move forward. This procedure may be extended to different types of cargo in view of urgent demands to respond to the pandemic.

4.2.1 Develop profiling matrix for types of cargo

There is a wide range of items moving through ports, and particularly in container vessels and terminals: fresh and frozen food, agricultural products, clothes, medicines, electronics, chemicals, paper and industrial supplies that support manufacturing around the world.

In order to pinpoint the essential cargo that must be specially tracked and prioritized in the supply chain due to its importance for pandemic management, and to identify different levels of prioritization, a matrix for types of cargo can be developed.

While food, medicines and medical equipment are always likely to be described as "essentials", depending on the kind of pandemic, and its evolution, that simple reasoning might not be enough. To precisely characterize the different goods according to the urgency of societal needs, the port must include in its diagnostic analysis the organizations in charge of managing the pandemic. Without the involvement of the national crisis management authorities, and the health and customs authorities, any attempt to classify the cargo will be useless.

Needless to say, the initial classification may change over the course of the pandemic, so the profiling of the cargo must be updated on at least a weekly basis.

If the pandemic is at a stage that is not particularly severe, just two categories may be identified: essential cargo (admitted through the "green lane") and non-essential cargo (subject to regular flow). However, in grave situations, where existing delays and bottlenecks make it necessary to limit the transit of cargo through the infrastructure, a third category of temporarily limited cargo may be defined. If this is the case, a mitigation area should be planned to prevent accumulations in the cargo terminals, as described in section 4.4.1 below.

Table 4: Example of a profiling matrix for types of cargo

CATEGORY	MEASURES APPLIED	CARGO
I - Highly essential cargo	Green lane priority Police escort to the logistic centre Starting at 6.00	Medicines Ventilators
II - Essential cargo	Green lane priority Starting at 8.00	Face masks Food
III - Regular cargo	Regular lane Trucks to pick up regular cargo will only be admitted into the terminal when waiting time in the green lane is under 10 minutes time	Clothes Drugstore products

4.2.2 Ensure transport fluidity of medical supplies and food

A variety of measures may be established in the port to ensure that the movement of essential cargo is prioritized within port facilities.

In the case of bulk or breakbulk vessels carrying food or medical equipment, it might be possible to establish rules, in coordination with customs and health authorities, to give these ships priority in the berthing over the rest of the calls.

In the case of container vessels with many containers and a variety of cargo, this kind of prioritization for berthing may not be possible due to the difficulty in knowing and analysing the entire content of the containers that are to be unloaded. Given the distribution of the containers on board, establishing priority in the unloading operation may not be possible either. In this case, prioritizing the processing and removal of the containers with essential cargo once they have been unloaded is technically and operationally easier and more feasible.

To create the green lane, the following elements must be taken into account:

1. Criteria must be defined as to what is considered essential cargo.
2. Customs authorities must identify the containers belonging to any of the categories defined previously, and:
   - Accelerate the import process of the “green lane” goods, in accordance with Customs procedures, and in coordination with sanitary inspections of imports.
   - Pass the information on the “green lane” containers to the container terminals and the port authority.
3. The container terminal must place the “green lane” containers in easily accessible positions for the trucks and the shipment teams in the terminal. This could be upper positions in the regular piles, or a specific differentiated area.
4. Fast lanes for the trucks picking up and taking away “green lane” cargo must be arranged at:
   - The entry and exit of the port.
   - The entry and exit of the container terminal.

Depending on the level of digitalization of the stakeholders and the involved administration, the tracking of the containers transporting essential cargo may be done electronically (e.g. identifying the number of the container and the licence plate of the truck linked to it, and integrating that information in the gate systems of the port and the terminal), or by physical means (indicating the “green lane” containers with a specific plate, or a seal, once they have been processed by Customs).

4.2.3 Allocate special cargo clearance area

If required for an easier cargo flow, and if possible given the terminal lay-out, terminals may allocate specific areas for depositing the “green lane” containers that must leave the port with the highest priority. These areas must be as close as possible to the gates of the terminal. There should also be enough staff and machinery enough to feed the trucks that will be arriving to pick up the containers. Specific gates and traffic lanes may be set up, to separate “green lane” flow from ordinary flow.

Depending on the pandemic situation, a 24/7 shift might be needed to speed up the delivery of the priority goods to the population.

Figure 17: Proposal of a special clearance area at the CSP Terminal Valencia

4.3 Interaction with shipping and cargo interests

4.3.1 Communication with customs & security officers

In light of previous crisis situation experiences, it is strongly advised to create a transparent, agile and proactive method to communicate with the various internal and external stakeholders. Efforts should be directed at providing clear information on the status of the port operations, the implemented response systems and contingency measures, and the care taken of port community members. Additionally, attempts should be made to improve the ongoing community commitment and promote dialogue.

A wide variety of communication tools can be used for this purpose. Ports should strive to ensure prompt, transparent communication with its internal public and strategic stakeholders. Daily reports should be sent with updates, including the recommendations of the public agencies in charge of the pandemic response.

More specifically, suitable communication protocols must be designed for the main actors in terms of the security and assurance of the cargo flow: customs officers, security forces, cargo agents, shipowners, etc.

These stakeholders may have special information requirements related to their role in the pandemic response:

- Customs and security officers must have immediate access to the cargo tracking systems so that they can track the cargoes under their remit.
- If the cargo or the vessel needs special controls, depending on its origin or characteristics, agents and the shipowner must be kept up-to-date on the situation of the cargo/vessel and related requirements.

In these cases, to facilitate the flow of information with customs and security officers on the one hand, and with cargo agents or shipowners on the other, at least one person should be designated as the specific point of contact in the organization. These persons must communicate their role to the stakeholders.

4.4 Storage strategy at operational level

Storage strategy in the port traditionally responds to different requirements:

- Need for storage of excess of cargo when the rate of cargo delivery in the port is higher than direct delivery by transport modes.
- To achieve economies of scale during shipment of cargo, or during purchasing of the goods.
- To maintain a reliable source of supply.

Ports establish their storage strategy on the basis of the available space in the port, the logistics needs of the hinterland, and the pricing policy applicable. However, another factor must now be included in the storage strategy: the need for extra storage due to disruptions or bottlenecks in the supply chain during a pandemic situation.

4.4.1 Define specific mitigation areas in the port vicinity

As explained in section 4.1, cargo flow may be disrupted due for different reasons and there is a need to plan for extra storage.

In ports with no shortage of space available, the solution to this issue is easy: preparing areas of land close to the cargo terminals as open space cargo storage, with the possibility of raising warehouses if needed.

However, if there is a high level of occupancy in the port, all of the available space will be needed to resolve issues such as port operation delays and bottlenecks, classifying cargo types, and special clearance cargo areas; an alternative solution will thus be required for mid- and long-term storage.

To do this, there is a need to identify well-connected nearby areas, suitable for the storage of large amounts of cargo, and if possible establish agreements for their use. The steps taken to do this should be as follows:

1. Identify large areas in the port vicinity with these specific characteristics:
   - Not currently in use;
   - No expected usage in the next 2 years;
   - Ready for depositing cargo without extensive work required; and
   - If possible, located within a maximum of one hour by road or by train.
2. Contact the landowner, and draw up a written pre-agreement, with a quick procedure to occupy the plot if needed. If possible, prices and deadline should be negotiated.
3. Design the machinery needed to work in the plot, and how to get it there when a pandemic situation hits. This could lead to the over-sizing of the port machinery. An agreement with a rental company could be considered.

As part of the planning of mitigation measures to be implemented, this mitigation area planning **must be updated yearly**, with the current availability of land in the vicinity of the port.

Figure 18: Example of a mitigation area for Valenciaport[1]

4.4.2 Secure stock and spare parts

The maintenance and repair of the port operations machinery is usually planned on the basis of a well-functioning spare parts supply chain. However, this might be affected by the disruptions caused by a pandemic, so a spare parts stock plan must be drafted. This plan must consider the scenario of maximum demand for the machinery fleet: as shown above, all of it will be used in the regular operations, plus the operations in the special cargo clearance areas, plus the machinery needed in the mitigation areas in the port vicinity.

The planning must consider:

- Maximum number of each type of machine working in all the mentioned areas;
- Criticality of the machines in the supply chain;
- Availability and geographic origin of the spare parts (parts coming from overseas must be prioritized in the stock)
- Probability of failure and the price of the parts.

Again, as part of the planning of mitigation measures, this spare parts stock plan must be updated on a yearly basis.

1 Source: San Luis Intermodal Platform

4.5 Impact on ongoing contracts

Certain clauses in a contract specify when and how the contract can be amended or terminated. With an amendment, it is possible to add, delete or correct a part of the contract without completely replacing the contract. This can be helpful if, for example, the aim is to postpone or reschedule a contractual obligation due to a pandemic, instead of terminating the contract. Cancelling or terminating a contract could potentially mean a penalty or having to face a litigation process with the contractor, who could potentially benefit from a force majeure cause, if applicable.

In the event of the extinction of a contractual obligation (e.g. assistance for an event that has been called off because of the pandemic), the cancellation of the contract, if permitted under the agreement or if mutually agreed by the parties, may be the most favourable outcome for all parties.

However, in a pandemic situation, most of the ongoing contracts have to be executed in a different way, adapted to the pandemic circumstances, so an agile procedure for the amendment of the contract is recommended.

Since ongoing contracts are affected by the temporary impossibility or difficulty of meeting the obligations, legal mechanisms must be foreseen to amend them in order to:

- Avoid contract cancellation by the other party (contractor);
- Suspend automatic application of penalization clauses in the contract;
- Guarantee the execution of the contract with additional health and safety measures.

Such an amendment could allow the continuance of the contract, with the least interruption time possible, minimizing wrongful losses for the contractor and damages to the contracting company.

4.5.1 Force majeure

Contracts may also have a force majeure clause, or a reference to what is considered force majeure in the national regulations, which offers a way of terminating a contract or excusing or postponing some of the parties' obligations.

In some contracts, a force majeure clause could say that a party does not have to continue with its obligations under the contract if its performance becomes impractical, illegal, impossible or inadvisable due to certain events that are outside the control of either party (such as acts of God, war, or strikes, as mentioned in US laws). Some force majeure clauses specifically include epidemics or pandemics, and/or events resulting from governmental laws, regulations or actions. On the other hand, a force majeure clause may specifically exclude pandemics, which makes it much more difficult for the parties to use the force majeure clause to get out of the contract.

The European Union defines force majeure as "*an event that cannot be anticipated or which, if anticipated, is too strong to be controlled, i.e. it cannot be evaded through the exercise of due care such as a natural disaster*"; as such, it is debatable whether the unforeseen and major disruptions caused by a pandemic would qualify as "force majeure".

Spanish law, however, defines force majeure in a very narrow sense, leaving out pandemics.

> "The following will be considered *cases of force majeure:*
>
> *a) Fires caused by atmospheric electricity.*
>
> *b) Natural phenomena with catastrophic effects, such as tidal waves, earthquakes, volcanic eruptions, land movements, sea storms, floods or similar.*
>
> *c) Damage caused violently in t*imes of war, tumultuous robbery or serious disturbance of public order."

All of the above shows that a general force majeure clause is not enough to achieve the aforementioned objectives of allowing the contracts to go on, with reinforced health and safety measures, and avoiding wrongful losses to the contractor. Tailor-made clauses are thus recommended.

4.5.2 Legal risk management as a consequence of the effects of a pandemic on the contracts in force

A pandemic can severely affect the contracts already in force in a port. To mitigate the undesirable effects, a series of legal measures that could be implemented are proposed below.

Certain service and supply contracts that are provided successively and whose execution becomes impossible as a result of the pandemic may be automatically suspended. Other service and supply contracts where, as a result of the pandemic, the contractor is delayed in meeting the established deadlines, may benefit from an extension of the initial term if the contractor offers to fulfil its commitments. For works contracts that were in force at the time of entry into force of the declaration of the "State of pandemic", which have not lost their purpose, and where the pandemic situation makes it impossible to continue the execution of the contract, the contractor may request the suspension of the contract from the moment in which the factual situation arises that prevents the execution of the contract.

The suspension of a contract may imply that the contracting party has to pay the contractor for the damages and losses suffered by the latter during the suspension period. Damages for which the contractor may be compensated are the following:

1. Salary costs actually paid by the contractor to the personnel that was assigned on the date of the declaration of the "State of pandemic" during the suspension period of the contract.
2. Maintenance costs during the period of suspension of the contract.
3. Rental or maintenance costs of machinery, facilities and equipment directly linked to the execution of the contract, during the period of suspension of the contract, provided that the contractor can prove that these could not be used for other purposes during the suspension of the contract.
4. The costs corresponding to the insurance policies provided for in the contract that have been contracted by the contractor and that are in force at the moment of the suspension of the contract.

In order to facilitate the above, in the event of suspension, it is recommended to draw up a report signed by the contractor and the director of the works or supplies, which states the factual situation in which the service or supply remains, and, as far as possible, specify the material and human resources which at that time were affected by the contract and were not likely to be transferred to other contracts.

Finally, specific, exceptional and urgent regulations can be adopted in order to speed up and guarantee the execution of the following types of contracts: contracts for medical,

pharmaceutical or other services or supplies and whose object is linked to the health crisis caused by the pandemic; contracts for security services, cleaning or maintenance of computer systems; and contracts for services or supplies necessary to ensure the mobility and safety of transport services and infrastructure and whose object is linked to the health crisis caused by the pandemic.

4.6 Financial impact assessment and forecasting

When a pandemic is happening, we may see a downward trend in projected world GDP growth, and this can be reflected in a disruption of cargo flows. Businesses in all sectors may be affected and should seek out tools to mitigate the financial consequences. The port sector must face these challenges and look for opportunities raised by the new cargo flows.

A good initiative is to model scenarios and the exposure of the organization's business model to the impact of changing cargo volumes as well as other revenues, and to the increase in operational costs and other expenses. The exposure to the financial impact will be different for a port authority compared to a cargo terminal, a port labour pool or a freight-forwarder. Therefore, depending on the kind of organization, the resulting revenue/expenses scenarios may differ even in response to the same pandemic situation.

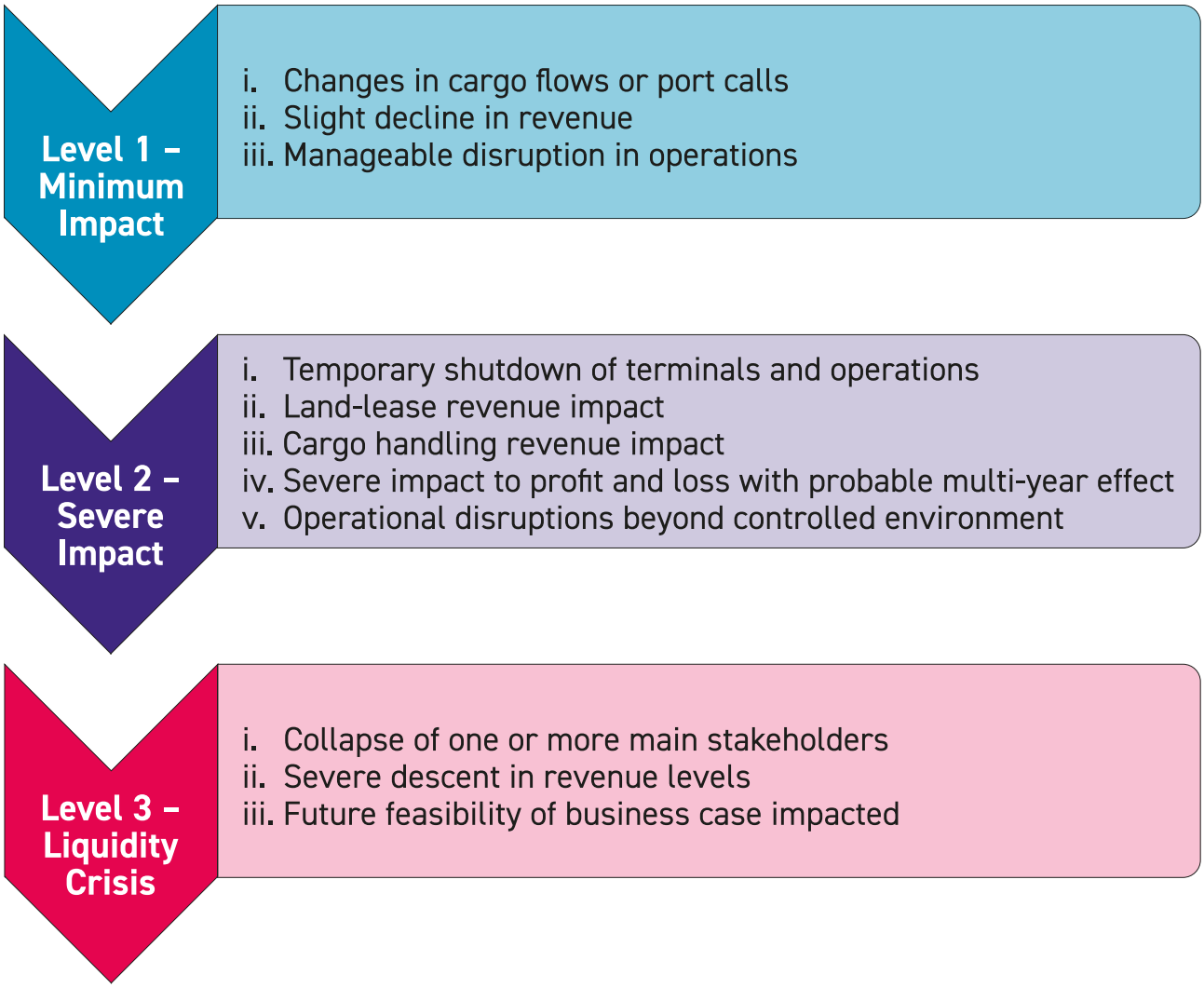
Some aspects to be considered:

- Cargo terminal: the cost of the operational mitigation measures (e.g. cleaning, disinfection, reinforcing PPE, longer shift changes) may be in the 3%-15% range of income, depending on the level of automatization and digitalization.
- Port labour pool: the expenses may grow by 2% due to procurement of new pandemic-specific PPE, but an increase in the income rate per tonne may be expected, since more port labour would be required by the terminals for the same amount of cargo, due to the lower efficiency of the operations.
- Port authority, a freight-forwarder, or any organization whose main tasks consist of administrative work: the main factor to be considered is the reduction in revenue.

4.6.1 Analyse financial impact and define financial scenarios

It is a good idea to assess the financial risks using the classical tools: identify, categorize probability and impact, and allocate to modelled scenarios, such as "Level 1 – Minimum Impact, Level 2 – Severe Impact and Level 3 – Liquidity Crisis". Suggested parameters:

Figure 19: Financial impact scenarios



Mitigation actions should be analysed according to the level of impact predicted as well as individual business models. However, baseline measures can be considered, such as:

A. Personnel:

- Freeze hiring plans
- Cancel all non-critical training
- Reallocate staff to departments critically involved in execution of mitigation measures
- Put staff on temporary unemployment (if possible under local labour laws)
- Prohibit overtime

B. Financial stability:

- Defer or suspend investment CAPEX savings and non-regret suspension
- Place new contracting on-hold
- Reconsider and adapt discretionary spending (e.g. marketing, advertising)
- Negotiate extending payment terms with suppliers to reserve cash
- Evaluate cost position and create a mid-long-term blueprint of cost saving opportunities (e.g. optimize general and administrative costs, run procurement savings programs, implement zero-based budget, etc.)

For each scenario, the impact on revenues and expenses and the effect of the mitigation measures that could be applied should be considered, and the need for credit should be assessed and compared with the actual credit lines that could be secured by the organization.

A financial risk map should be drawn up, defining the meltdown scenario for the viability of the company.

In a pandemic situation, to mitigate potential impacts, financial mitigation actions should be taken and closely monitored and updated on a weekly basis, to determine the level of impact and the appropriate scenario.

4.6.2 Challenges stakeholders are facing and potential actions

Financial and economic challenges are a tough obstacle for all the members in the port community. The main actions in that field are performed by the banking sector, but it is possible to develop accompanying measures to help resolve the issues facing stakeholders.

First of all, avoiding extra expenses might help port community members in a fragile financial position. This can be achieved by creating a stakeholder's procurement and contracting pool for elements required by all, such as PPE (e.g. facemasks, gloves), fuel, spare parts, legal counsel, security and cleaning services, etc. The legal entity of the pool should be defined prior to the pandemic so it can get up and running without any delay when the time comes.

There are other financial and economic measures that may be taken by the financially strongest organizations in the port community, such as big shipping companies owning terminals, or public companies (i.e. port authorities, customs). In any case, the following measures can apply to third parties (this fact will be considered in the financial scenarios described in section 4.6.1).

Possible financial measures may include:

- Grant deferrals of payment to clients for a period of 6 months, without applying interests and without the need to guarantee such deferrals.
- Grant or extend credit lines to clients.
- Delay the invoicing of half-yearly fee settlements in the case of public prices or the invoicing of services provided to customers in the case of private prices.
- Do not apply the penalties or other consequences that may be foreseen in the concession or rental titles for failure to comply with the traffic commitments agreed to with the owner of the land, when such failure is due to the pandemic.
- Apply the bonuses or discounts for reaching volumes foreseen prior to the pandemic scenario, when the client does not reach these volumes due to the crisis.
- Speed up as much as possible the period of payment to suppliers, without exceeding in any case 30 days from the reception of the invoice.
- Design additional bonuses or "ad hoc" structures for the fees and/or private prices for the users and clients due to the crisis situation.

4.7 Port disruption scenarios

Port functionality is a relevant aspect of cargo flow, so port-related supply chain disruptions may affect the total supply chain costs due to the increased integration of ports in supply chains. In particular, disruptions to the operation of container port activity can be detrimental to international trade and commerce. Previous sections have identified a list of pandemic-related supply chain disruption threats connected with ports and developed some guidelines to address these threats.

If a disruption situation emerges, both operational and economic scenarios must be considered.

4.7.1 Impact of pandemics on port operations

As explained above, common impacts of pandemics on port operations may be:

- Deterioration of workers' health
- Lack of trained workers
- Delays in operations
- Technological and information system failures
- Traffic and transport restrictions
- Lack of storage space
- Financial difficulties
- Reputational damages
- Detention of vessels at port
- Lack of spare parts

4.7.2 Risk assessment to guide short term actions and understand potential mid-term impacts

Based on the observed international best practices, it is important to act quickly in order to prevent the spread of the virus during a pandemic, with a focus on the health and safety of the port community, while maintaining the port operational. Rapid, transparent, and proactive communication with the various stakeholders is also key in this aspect.

To achieve that goal, rapid risk assessments must be conducted. Risk assessment must be aimed at anticipating the effect of disruptions in port operations, considering how priorities change, and must guide actions that are effective and feasible to implement. The priority of measures to adopt to ensure the continuity of port operations should account for the economic impact of such disruptions across a variety of scenarios.

Objectives of a risk assessment:

1. Determine what operations need extra support to maintain cargo track and trace, and people flow (see section 4.1.1).
2. Identify the challenges that the different stakeholders of the port are facing, and what actions can be taken by the organization to maximize the collective benefit (see section 4.1.2).
3. Conduct a financial risk assessment (see section 4.6.1).

   The risk assessment must be done taking into consideration all the stakeholders and potential disruption factors and must be carried out during normal circumstances.

In the event of a pandemic, the assessment must be rapidly adjusted to the specific situation by the crisis response teams, to guide short term actions and understand the mid-term impact.

A weekly update of the risk assessment and the measures to adopt is highly recommended.

A well-performed risk assessment will help:

1. Avoid disruption
2. Mitigate disruption, or
3. Limit the length of the disruption.

4.7.3 Assign business continuity management and develop risk management

As discussed in section 3, in a pandemic situation, organizations try to set up home offices for administrative staff but find themselves in different stages of implementation. IT and communications infrastructure limitations pose challenges on some occasions. The remote work authorization regime has its specific characteristics and varies per port. Some ports may require their entire administrative workforce to work from home, while others may deal with the matter on a case-by-case basis.

The organization of operational teams varies according to port size and type of cargo handled. Some ports may not change their operational workforce, although they may implement protocols to protect their workers prior to starting and during their daily activities. Most ports may operate with a rotation system after forming teams A and B, who do not physically come into contact with each other.

These teams must alternate on a daily, weekly, or fortnightly basis. In larger organizations, it is possible to reduce the number of people working in teams A and B in order to create a standby C team. There is an even a more elaborate alternative of operating with teams A and B, while setting up team C as a pool of multidisciplinary professionals who can move around different operational areas.

To ensure cargo operations, facilitate the creation of operational stand-by teams and/or minimize contagion risks, some ports may cease non-essential services to prioritize and guarantee the continuity of their core port activities (e.g. maritime access, docking, and cargo operations). Actions should be focused on the core operations such as maritime access, docking and cargo operations, and mapping out flexible operational measures to support contingency actions.

To accomplish these goals, the senior management team of the port must appoint or nominate a person with appropriate seniority and authority, who will choose a close team to form a Business Continuity Management Team, which will be accountable for the Business Continuity Management policy and implementation.

This team will also assign specific teams such as:

- Strategic Team, to deliver and update the risk management plan.
- Operational Team, to apply all the port-related measures proposed and coordinate their application with the operations stakeholders.
- Internal Management Team, to manage human and material resources of the organization.
- Economic Team, to control the economic impact of the pandemic.
- External Relations Team, to manage communications and media

Figure 20: Business continuity management

CONCLUSION

Ports are key actors in global supply chains. Therefore, any disruption, no matter how small, can have a major negative effect on society. In this respect, as the Chinese proverb says, "the fluttering of the wings of a butterfly can be felt on the other side of the world."

The COVID-19 pandemic declared in March 2020 and its resulting impact provide a series of lessons that could allow ports to be better prepared to respond to pandemic-related health crisis situations.

Many of the emergency situations stemming from accidents or terrorist acts such as fires, explosions, kidnappings, floods, etc. are included in a port's protection and contingency plans. Preparedness and response plans contain precise instructions for dealing with different situations in which both the actors of the port community and the local, regional and national authorities have to coordinate their response. Among the different situations, many ports include the actions to be taken in the event of a health risk situation caused by the illness of a seafarer or a port worker.

Based on experience and scientific evidence from the studies carried out, it is important to point out that nothing should be left to improvisation. This manual presents different elements to be planned and divides them into four sections, thus serving as a guide on what should be taken into account in a port. The following topics have been covered: the definition of the protocols of action in the face of possible emergency situations in a port; the identification of all stakeholders by evaluating those who should remain in the port and those who can work remotely; the design of an organization's decision-making process.

Furthermore, pandemic situations generate a lot of stress and anxiety for the workers, who are essential for the continuity of port activities. Therefore, it is necessary to establish fluid communication, to implement measures that protect them and make them feel protected, and to know at all times how they are experiencing the situation in order to take the necessary measures to allow them to do their work in the best possible conditions. Other key players whose situation is complex are the seafarers. In this regard, the manual provides recommendations as well as protocols of action for the benefit of both seafarers and port workers.

In addition to the above, the availability and management of technology is another challenge in a pandemic situation. Technological resources (e.g., applications, processes, information and communication systems) are designed for an organization under normal circumstances. However, these design decisions are no longer valid in a pandemic situation and need to be reconsidered, redesigned and reprioritized. It is important to ensure that technology, capacity and security measures are in place to support a large proportion of the workforce working remotely; to implement productivity tools for employees working remotely; to digitalize processes as far as possible; and to improve IT security and resilience.

Finally, it is crucial to ensure the continuity of the cargo flow and the logistic chains in order to maintain the supply of goods, including essential goods during a pandemic. Organizations must carry out risk assessments considering all possible disruptions affecting cargo, people flow, and all port community stakeholders. Risk assessment enables the design of action plans in every sphere of the organization: economic, operational, and corporate. The assessment and action plan design must be done during normal circumstances, and then quickly adjusted, updated and monitored as the pandemic evolves.

ANNEX I

Good practices in ports in response to COVID-19

The aim of this annex is to present, through a collection of good practices, the actions taken by some ports and companies of the port community in the fight against COVID-19. These examples were collected the first time this TrainForTrade special course "Building Port Resilience Against Pandemics" was delivered in the month of March 2021. The good practices identified cover various sections of this manual, ranging from communication, contingency plans, protocols, measures, etc. This annex compiles useful information, which could serve as a reference when dealing with a pandemic in a port.

In the context of the COVID-19 pandemic, ports and organizations have implemented numerous measures to prevent and reduce the risk of infection. These measures can be classified into three main groups: health, mobility and awareness-raising.

The aforementioned groups report on common **sanitary measures** that have become mandatory in many places, such as checking body temperature prior to port entry, hand washing, placing hand sanitizers in strategic locations, distributing face masks and encouraging staff to wear them, enforcing a policy of "no entry without face masks" and posting signs on most office doors.

In addition, **mobility-focused measures** have been put in place in many ports such as limiting non-essential visits to pre-approved visiting hours and days, reducing travel, sending home staff in certain categories to telework, reducing transport capacity, etc.

Figure 21: Example of Guidelines by the Department of Transportation of the Philippines

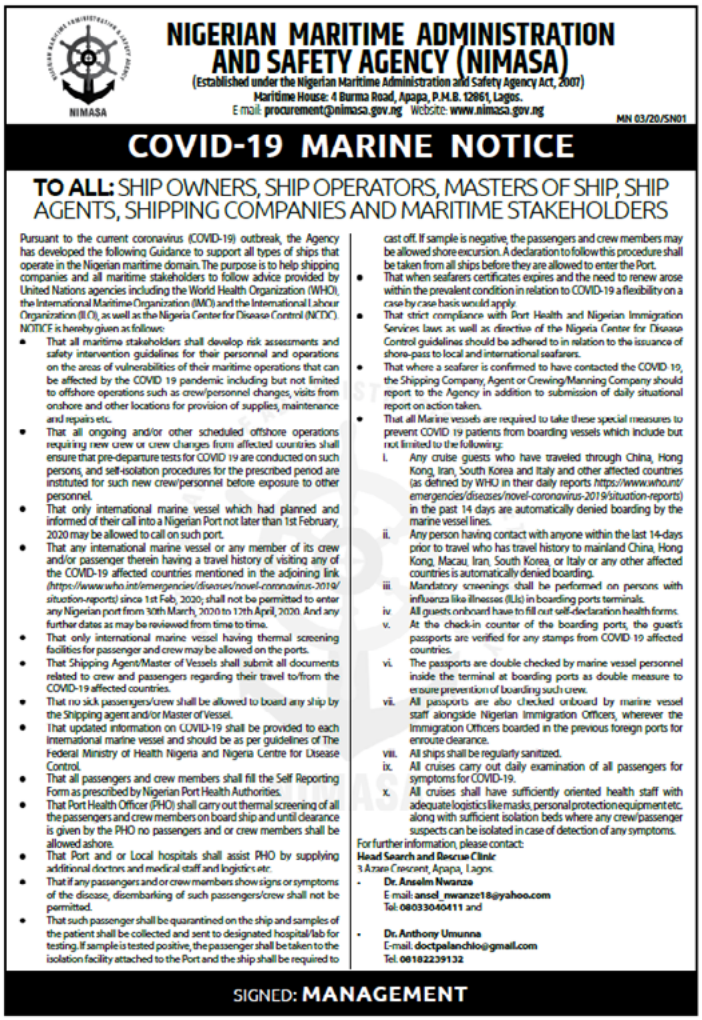
Finally, other actions have focused on **awareness-raising and communication** with workers and acting in accordance with established standards. In this regard, some of the main challenges in the ports have been to raise the awareness of people from different cultural background, including port workers, ship agents, truck drivers, motorists, cargo agents, etc., who sometimes doubted the existence of COVID-19 or thought that it was a conspiracy. Some people found it difficult to adhere to preventive protocols, therefore putting themselves and others at risk.

Although most seem to have followed measures or protocols because of fear of arrest and prosecution, in the absence of enforcement many did not observe preventive measures thus becoming a possible conduit for COVID-19 transmission. Ports have therefore developed information, education and communication materials on COVID-19 following established protocols from global and national health authorities to provide internal information to staff, as well as maritime notices to seafarers and port workers and related stakeholders in the maritime sector. Among other objectives, the aim was to explain the important need for risk assessments, identification of areas of high vulnerabilities and collective and individual measures.

Apart from the standard behaviour adopted by ports and in line with WHO recommendations, some ports defined particular action plans and protocols. In this respect, it is important to mention other measures taken by ports directly linked to ships and crew management. Ships arriving at a port control station were mandated to declare the health status of all crew and passengers on board. The port authority activated the emergency medical evacuation plan by calling the health authorities in the event of a sick person on board.

For the global maritime industry to continue to play a key role in ensuring that essential commodities such as food and medical supplies reach the population, the classification of seafarers as key players has been very important. Therefore, it has been vital to maintain healthy crew changes by taking various preventive measures in these aspects. Thus, seafarers were declared essential workers to facilitate crew changes in many countries. Medical support was extended to personnel who were emotionally and psychologically exposed to the pandemic. Palliative care was also extended to staff and the seafarers/maritime workers' association.

Figure 22: Example of a Marine Notice by the Nigerian Maritime Administration and Safety Agency



NIGERIAN MARITIME ADMINISTRATION AND SAFETY AGENCY (NIMASA)

(Established under the Nigerian Maritime Administration and Safety Agency Act, 2007)

Maritime House: 4 Burma Road, Apapa, P.M.B. 12861, Lagos.

E-mail: procurement@nimasa.gov.ng Website: www.nimasa.gov.ng

MN 03/20/SN01

COVID-19 MARINE NOTICE

TO ALL: SHIP OWNERS, SHIP OPERATORS, MASTERS OF SHIP, SHIP AGENTS, SHIPPING COMPANIES AND MARITIME STAKEHOLDERS

Pursuant to the current coronavirus (COVID-19) outbreak, the Agency has developed the following Guidance to support all types of ships that operate in the Nigerian maritime domain. The purpose is to help shipping companies and all maritime stakeholders to follow advice provided by United Nations agencies including the World Health Organization (WHO), the International Maritime Organization (IMO) and the International Labour Organization (ILO), as well as the Nigeria Center for Disease Control (NCDC).

NOTICE is hereby given as follows:

- That all maritime stakeholders shall develop risk assessments and safety intervention guidelines for their personnel and operations on the areas of vulnerabilities of their maritime operations that can be affected by the COVID 19 pandemic including but not limited to offshore operations such as crew/personnel changes, visits from onshore and other locations for provision of supplies, maintenance and repairs etc.
- That all ongoing and/or other scheduled offshore operations requiring new crew or crew changes from affected countries shall ensure that pre-departure tests for COVID 19 are conducted on such persons, and self-isolation procedures for the prescribed period are instituted for such new crew/personnel before exposure to other personnel.
- That only international marine vessel which had planned and informed of their call into a Nigerian Port not later than 1st February, 2020 may be allowed to call on such port.
- That any international marine vessel or any member of its crew and/or passenger therein having a travel history of visiting any of the COVID-19 affected countries mentioned in the adjoining link (https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports) since 1st Feb, 2020; shall not be permitted to enter any Nigerian port from 30th March, 2020 to 17th April, 2020. And any further dates as may be reviewed from time to time.
- That only international marine vessel having thermal screening facilities for passenger and crew may be allowed on the ports.
- That Shipping Agent/Master of Vessels shall submit all documents related to crew and passengers regarding their travel to/from the COVID-19 affected countries.
- That no sick passengers/crew shall be allowed to board any ship by the Shipping agent and/or Master of Vessel.
- That updated information on COVID-19 shall be provided to each International marine vessel and should be as per guidelines of The Federal Ministry of Health Nigeria and Nigeria Centre for Disease Control.
- That all passengers and crew members shall fill the Self Reporting Form as prescribed by Nigerian Port Health Authorities.
- That Port Health Officer (PHO) shall carry out thermal screening of all the passengers and crew members on board ship and until clearance is given by the PHO no passengers and or crew members shall be allowed ashore.
- That Port and or Local hospitals shall assist PHO by supplying additional doctors and medical staff and logistics etc.
- That if any passengers and or crew members show signs or symptoms of the disease, disembarking of such passengers/crew shall not be permitted.
- That such passenger shall be quarantined on the ship and samples of the patient shall be collected and sent to designated hospital/lab for testing. If sample is tested positive, the passenger shall be taken to the isolation facility attached to the Port and the ship shall be required to cast off. If sample is negative, the passengers and crew members may be allowed shore excursion. A declaration to follow this procedure shall be taken from all ships before they are allowed to enter the Port.
- That when seafarers certificates expires and the need to renew arose within the prevalent condition in relation to COVID-19 a flexibility on a case by case basis would apply.
- That strict compliance with Port Health and Nigerian Immigration Services laws as well as directive of the Nigeria Center for Disease Control guidelines should be adhered to in relation to the issuance of shore-pass to local and international seafarers.
- That where a seafarer is confirmed to have contacted the COVID 19, the Shipping Company, Agent or Crewing/Manning Company should report to the Agency in addition to submission of daily situational report on action taken.
- That all Marine vessels are required to take these special measures to prevent COVID 19 patients from boarding vessels which include but not limited to the following:
  - i. Any cruise guests who have traveled through China, Hong Kong, Iran, South Korea and Italy and other affected countries (as defined by WHO in their daily reports https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports) in the past 14 days are automatically denied boarding by the marine vessel lines.
  - ii. Any person having contact with anyone within the last 14-days prior to travel who has travel history to mainland China, Hong Kong, Macau, Iran, South Korea, or Italy or any other affected countries is automatically denied boarding.
  - iii. Mandatory screenings shall be performed on persons with influenza like illnesses (ILIs) in boarding ports terminals.
  - iv. All guests onboard have to fill out self-declaration health forms.
  - v. At the check-in counter of the boarding ports, the guest's passports are verified for any stamps from COVID-19 affected countries.
  - vi. The passports are double checked by marine vessel personnel inside the terminal at boarding ports as double measure to ensure prevention of boarding such crew.
  - vii. All passports are also checked onboard by marine vessel staff alongside Nigerian Immigration Officers, wherever the Immigration Officers boarded in the previous foreign ports for enroute clearance.
  - viii. All ships shall be regularly sanitized.
  - ix. All cruises carry out daily examination of all passengers for symptoms for COVID-19.
  - x. All cruises shall have sufficiently oriented health staff with adequate logistics like masks, personal protection equipment etc. along with sufficient isolation beds where any crew/passenger suspects can be isolated in case of detection of any symptoms.

For further information, please contact:

Head Search and Rescue Clinic

3 Azare Crescent, Apapa, Lagos.

- **Dr. Anselm Nwanze**
  E-mail: **ansel_nwanze18@yahoo.com**
  Tel: **08033040411** and
- **Dr. Anthony Umunna**
  E-mail. **doctpalanchlo@gmail.com**
  Tel. **08182239132**

SIGNED: **MANAGEMENT**

Specific examples

As discussed above, ports have implemented several measures based on WHO recommendations, but also specific protocols aimed at preventing and mitigating negative impacts on port business. Some specific or special measures are presented below.

The first example is from Kigoma Port in Tanzania, which is the gateway to the landlocked countries of Central Africa and provides goods to consumers through the Central Corridor. It is a member of the East African Community (EAC) and includes road, rail and inland waterway networks, all linked to a vast hinterland comprising Burundi, the Eastern Democratic Republic of Congo and Zambia. To address the many challenges resulting from the pandemic and affecting trade and transport logistics in the region, the Central Corridor and the EAC Secretariat initiated an online platform for key stakeholders to meet and discuss issues related to the Central Corridor and trade facilitation. The meetings bring together stakeholders from all Central Corridor member states to share experiences and exchange views on the challenges and opportunities arising from the pandemic. The platform also provides real-time updates on what is happening in each of the Member States, especially at each transit or transport node along the Corridor.

Economic and financial mitigating measures were also put in place. With regard to port charges, several revenue-generating stakeholders have requested a review of payments of port dues, concession fees, etc. The ports' responses to these requests varied as local legislation (e.g. state aid rules) applies. The response also depended on the commercial relations and governance model of the port.

Adjustments were made to working conditions in terminals, depots, warehouses, trucks, railways and barges, which continued operations during the crisis as permitted by government regulations.

Another specific example is the Nigerian Ports Authority (NPA), which adopted generic and emergency protocols within port locations to ensure the safety of workers and all port users and to minimize operations. An emergency response team was set up at the corporate headquarters, while two teams were formed at each port level: a port emergency management team and a port emergency response team. However, in an interesting measure to address the crew change challenges at the ports as a result of the blockade announced by the Federal Government, the NPA ordered all terminal operators to suspend all terminal storage fees applicable on shipments (demurrage) for the duration of the blockade. This was intended to alleviate the burden of the pandemic on their customers.

Another example is the measures implemented in ports of the Philippines and Malaysia, countries with a great diversity of islands and a wide range of ports. In these situations, some measures taken focused on the promotion of short shipping lanes. The essential activity of ports in supplying provisions, goods, etc., has been pointed out in the manual, so ports have to define actions to avoid any disruption to supply activities.

Finally, the box below contains instructions given by the Ghana's Port Committee formed by the Port Authority, Port Users i.e. Ghana Immigration, Port Health, National Security, Customs, Meridian Port Services and the Ghana Navy.

Measures put in place by Ghana's Port Committee

1. Ensure virtual meetings.
2. Publication and display of educational materials including posters, pull up banners all over the port enclave.
3. A Standard Operating procedure document was developed to guide port users on the measures to prevent the spread of the virus.
4. GPHA took further steps to provide logistics to transport relevant medical staff from the Port Health Services and the Ghana Navy.
5. GPHA to access ships at anchorage to screen the crew members and/or take samples from people with suspected cases of COVID-19.
6. COVID-19 emergency response guidelines were in place for port users including the provision of running water, hand sanitizers, soap, tissues, thermometer guns.
7. Contact addresses of the Incident Commanders i.e., Port Health Representatives from the Harbour Masters and Chief Pilots and others were made available.
8. All vessels expected to come into the Port of Tema and Takoradi are to provide information requested on the COVID-19 Medical Form via email seven (7) days before the Expected Time of Arrival (ETA) of any vessel. Any vessel that fails to comply is delayed or denied entry into the Ghanaian Port.
9. This form is sent to the Harbour Master and the Incident Commander i.e., the Head of Port Health Services with copies to the Head of Signals and the Chief Pilot. There is a daily update on the health status of all the crew sent via email.

In conclusion, it should be noted that ports have adopted many of the measures recommended by the WHO such as measures aimed at preventing and reducing contagion among workers, measures to encourage the use of protective equipment and compliance with social distancing measures in order to continue port activity. Ports are essential actors in supplying society's demand. It is therefore vital that their activities are not interrupted in the shipment of foodstuffs, sanitary materials, essential goods, etc. In this respect, all ports are aware of their importance and have therefore endeavoured to implement special measures to minimize the negative impacts of the COVID-19 pandemic.