



World Customs Organization

WCO Guide to Stress Tests

Design, implement and test plans
for business continuity and enhanced resilience

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List of Acronyms

BCM: Business Continuity Management

BCP: Business Continuity Planning

BIA: Business Impact Analysis

DRP: Disaster Recovery Plan

EPP: Emergency Preparedness Plan

PPE: Personal Protective Equipment

RKC: Revised Kyoto Convention

SIMEX: Simulation Exercise

SOPs: Standard Operating Procedures

TTX: Tabletop Exercise

WCO: World Customs Organization

Definitions

- **Business Continuity Management (BCM):** a holistic management process that identifies potential threats to an organization and the impacts to business operations those threats, if realized, might cause. It provides a framework for building organizational resilience with the capability for an effective response that safeguards the interests of its key stakeholders, reputation, brand and value-creating activities¹.
- **Contingency plan:** a tool used in planning a response to an emergency. When the actual crisis occurs and specific information becomes available, the Emergency Response Strategy section of the Emergency Preparedness Plan (EPP) can be quickly adapted into a Contingency Plan.
- **Disaster Recovery (IT):** part of Business Continuity Management (BCM) which includes policies, standards, procedures and processes pertaining to resilience, recovery or continuation of information technology (IT) infrastructure supporting critical business processes.
- **Emergency Preparedness Plan (EPP):** a scenario-based tool for planning the response to potential emergencies and ensuring that adequate arrangements are made in anticipation of a crisis. The goal of the EPP is to facilitate an appropriate, timely and effective response. The EPP relies on historical data and informed assumptions, and helps to determine several key decisions in advance of an emergency (e.g. what activities will be carried out, which organizations will be partnered with, who will lead the response and what support will be needed).²
- **Preparedness:** all actions taken to increase the knowledge and capacity to anticipate, respond to and recover from the impact of one or more events.
- **Readiness:** the outcome of preparedness actions; the outcome of planning, allocation of resources, training, exercising and organizing to build, sustain and improve operational capabilities based on risk assessments.

¹ [https://www.iqnet-ltd.com/en/our-portfolio/business-continuity#:~:text=Business%20Continuity%20Management%20\(BCM\)%20is,the%20capability%20for%20an%20effective](https://www.iqnet-ltd.com/en/our-portfolio/business-continuity#:~:text=Business%20Continuity%20Management%20(BCM)%20is,the%20capability%20for%20an%20effective)

² https://www.careemergencytoolkit.org/wp-content/uploads/2017/03/37_1.pdf

1. Introduction

In 2011, the WCO Council adopted the Resolution of the Customs Co-operation Council on the Role of Customs in Natural Disaster Relief.³ This Resolution urges Customs administrations to learn from past natural disasters and to improve their preparedness to face disruptive events and other incidents. The Resolution contains several provisions that explain which measures should be implemented to reach this objective.

Good preparedness is key to the effective and efficient response to natural disasters and other disruptive scenarios. Customs administrations should act proactively and not wait for the next event to happen.

When the COVID-19 pandemic struck, not all Customs administrations were suitably prepared to mitigate the impacts of this health crisis and to ensure the continuity of their operations, although it was imperative to enable the flow of critical and essential goods needed to fight the pandemic. The COVID-19 pandemic demonstrated that all countries needed to be concerned about their level of preparedness, and that the June 2011 Resolution was not just intended to assist disaster-prone countries.

The COVID-19 pandemic highlighted how important it was for Customs to be resilient by relying on robust emergency and business continuity management systems and procedures that produce a business continuity plan, and also to test its validity and robustness by carrying out stress tests. However, it also revealed that not all Customs administrations were familiar with these concepts, and that some required assistance to embed them into their organization.⁴

1.1. Objective

The objective of this tool is to assist Customs administrations in enhancing their business continuity management and carrying out stress tests to assess their ability to withstand extreme conditions.

This tool provides a set of concepts, approaches and techniques to assist Customs senior management in introducing a business continuity management system in their respective administrations, and in guiding their teams through the different steps required to establish the business continuity plans and test their robustness using different techniques.

1.2. Scope

³ http://www.wcoomd.org/-/media/wco/public/global/pdf/about-us/legal-instruments/resolutions/resolution_e.pdf?la=en

⁴ WCO Guide to Managing Customs' Human Capital through Crises and Beyond: <http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/capacity-building/activities-and-programmes/people-development/guide-to-managing-customs-human-capital-through-crises-and-beyond.pdf?la=en>

Business continuity is an intricate and interlinked process, and there is no one-size-fits-all approach since the measures adopted depend on the different starting positions of Customs administrations.

This tool is intended only to provide practical knowledge to Customs administrations related to the development of business continuity and contingency plans, and carrying out stress tests. This document does not include examples from particular countries but instead sets out some general considerations which administrations may wish to take into account.

This tool complements other WCO tools that cover common areas such as the WCO trade recovery guidelines, etc.

1.3. Structure

This tool covers two main areas:

1. Business continuity planning
2. Stress testing.

Note

This Guide was drafted using existing WCO instruments and tools and open-source information.

2. Business continuity management in the context of Customs administrations

Business continuity management (BCM), is an approach to risk management intended to address the threats of disruptions that an organization may face in ensuring the continuity of its activities and the functioning of its processes.

BCM involves managing risks to ensure that the critical functions continue to provide an acceptable level of service, even in the event of a major disaster. Effective business continuity can be attained by implementing a business continuity management system.

2.1. What is business continuity planning?

For Customs administrations, business continuity is mainly addressed in the guidelines laid down by Chapter 7 of the General Annex to the Revised Kyoto Convention (RKC), which define business continuity planning as “the overall process of developing an action plan to ensure the continuation of business in the event of unexpected unavailability of a crucial system or facility. For Customs it means the ability of the administration to maintain the collection of duties and taxes, the control of goods and people crossing the border, and the uninterrupted and speedy clearance of goods and people in international trade and travel.”⁵

Business continuity does not just cover the IT system alone but goes beyond it. Customs

⁵ <http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/wto-atf/dev/ict-guidelines.pdf>

administrations need to develop business continuity plans that identify critical business processes and mitigation measures. Having a plan for the continuity of Customs operations during the disaster period is essential.

2.2. Benefits

A business continuity management system provides many benefits for Customs administrations. These can be divided into three categories:

- **Saving assets and staff time:**
 - staff receive adequate support and communication in the event of a disruption;
 - the financial impact of a disruption may potentially be limited.
- **Building confidence among staff and third parties:**
 - the organization's reputation is protected;
 - internal and external dependencies (such as third-party suppliers) are identified and documented;
 - stakeholder requirements are understood and can be delivered;
 - the organization remains compliant with its legal and regulatory obligations.
- **Enhancing resilience:**
 - proactively identifying the potential impacts of an operational disruption so that plans can be put in place to minimize the impact on the organization;
 - critical functions/services are identified and their continuity ensured;
 - effective responses to any disruption are carried out.

2.3. Steps and techniques

The following steps and techniques should be considered:

- **Setting up the business continuity team**

Senior management should set up the business continuity team, selecting key-personnel from within the administration and any stakeholders that can support the process. Other members may join the team as required by the circumstances. Some key personnel may include representatives of the IT team, HR team, communications, security of Customs premises, safety department, etc.

- **Identification of the critical functions**

This step consists of identifying processes and functions that should remain operational during catastrophic events in order to mitigate risk, such as the IT system, the communication department, the main entry points, etc.

- **Analysing the risks**

Risk analysis supports the entire business continuity process. It is used to identify, quantify and qualify the impact of a loss, interruption, or disruption of an event on the business. A business impact analysis (BIA) identifies mission-critical activities and the timeframes within which they must be recovered. It should consider both internal and external organizational risks. The BIA should

explore all the risks that an administration is exposed to and the possible major disruptions that could occur. This can include single points of failure of systems, power, communications, etc.



Figure 1: Business Continuity Planning Best Practice Examples and Lessons Learnt from the Covid-19 Pandemic Version 1.0, May 2021⁶



After identifying the risks, it is crucial to assess their impact on the administration's staff, premises, assets and operations. The risk levels or scores obtained are defined by the characteristics of impact and probability or likelihood, also referred to as the “criticality” of the risk.

A risk may have a major impact when it occurs even though the probability that it may happen can be very remote. Conversely, a risk with a minor impact may turn into a major risk for the administration if it occurs repeatedly or is not managed. Therefore, when discussing the criticality of a risk, there should be clarity about the probability of each risk and its potential impact on the relevant objective(s).

The scores obtained from the matrix are entered into a risk scoring table which determines the risk criticality levels, enabling identification of which risks need to be addressed first in business continuity planning. Once the priority risks to be addressed by business continuity planning have been identified, together with their potential consequences, it is important to assess which risk response actions need to be initiated, and which are already in place; in the latter case, it is necessary to assess whether the measures in place are sufficient to ensure business continuity or whether they need to be improved or strengthened. If the priority risks and risk response actions identified as part of the business continuity planning process cannot be readily included in the budget centre's risk register, the administration should update its risk register accordingly⁷, through the risk management tool.

⁶ https://www.tsa-voice.org.uk/downloads/covid-19/tsa_business_continuity_planning_best_practice_examples_and_lessons_learnt_from_covid-19_v1.0_25th_may_2021_v.2.pdf

⁷ <https://apps.who.int/iris/bitstream/handle/10665/324850/WHO-WHE-CPI-2018.60-eng.pdf?sequence=1&isAllowed=y>



Figure 2: Example of Risk scores⁸

		IMPACT					
		Very low	Low	Medium	High	Very high	
PROBABILITY	Very low	1	1	2	3	4	5
	Low	2	2	4	6	8	10
	Medium	3	3	6	9	12	15
	High	4	4	8	12	16	20
	Very high	5	5	10	15	20	25
		1	2		3	4	
		Low		Medium	High	Very high	
		CRITICALITY					

- Reducing the impact of the risks

After the BIA, an organization should look to mitigate the risks that have been identified and that threaten people’s health and safety, operations, service users, company assets, or the environment, by reducing the risk to an acceptable level. Strategies to help mitigate risk are shown in other sections below.

- Identifying response actions

Once the risks have been identified, the next step is to ascertain which measures are already in place, and which can be taken to prevent or mitigate the impact of the risks. These measures should be put in place or strengthened as soon as the risks have been identified.

Table 1: Example of risks and response actions to be implemented

Identified Risk	Pandemic/epidemic outbreak
Infection	- Provision of personal protective equipment (PPE) - Activate health protocols - Rearrange work areas
Shortage of staff	- Switch to remote work - Prioritize critical activities - Reassign staff

- Designing the business continuity plan

⁸ <https://apps.who.int/iris/bitstream/handle/10665/324850/WHO-WHE-CPI-2018.60-eng.pdf?sequence=1&isAllowed=y>

In this step, the Customs administration will learn about the components and structure of the plan. The detail of each plan will depend on the administration's structure, risks identified and main functions. The BCP may contain the following sections:

- **Document control:** the business continuity plan must be a controlled document with a BCP process that releases and communicates new versions when they have been signed off to enable this.⁹ Some of the information provided in this section are: the purpose of the plan, its scope, the review cycle, etc.
 - **Plan activation:** this section will provide information about the circumstances that will require the activation of the plan, the parties with responsibility for activation, and the activation process.
 - **Incident management:** this section sets out the initial actions that should be undertaken immediately after the incident occurs, e.g. evacuation of the building, calling emergency services, etc.
 - **Business continuity:** this section details the actions that the business continuity team should take, such as identifying the staff involved in the execution of the BCP, etc.
 - **Recovery and resumption:** this section includes the measures that should be implemented to resume activities.
- **Communicating the plan**

Once the BCP has been finalized, it is important to carry out training for staff with key roles and assignments in the business continuity, disaster recovery, and incident response processes. The BCP should also be communicated to the relevant internal staff, partner organizations and stakeholders.

- **Testing the plan**

Testing is the generic term used to describe the critical process of exercising strategies and plans, rehearsing with co-workers, and testing systems (technology infrastructure and administrative systems) to demonstrate business continuity.

⁹ <https://itchronicles.com/business-continuity-planning-a-guide-to-create-an-effective-bcp/>
www.wcoomd.org

Figure 3: Summary of business continuity planning steps

- Set up the business continuity team
- Identify the critical functions
- Analyse the risks
- Reduce the impact of the risks
- Identify response actions
- Design the business continuity plan
- Communicate the plan
- Test the plan

3. Stress tests for Customs administrations

After establishing the business continuity plan, it is crucial that Customs administrations carry out stress tests in order to continuously improve their ability to successfully recover from various scenarios, be it a natural disaster, an IT failure, or any other disruptive event.

Stress testing offers a way to identify and correct organizational vulnerabilities in a safe environment rather than learning the hard way through experience, and suffer the negative impacts of the disruptive event.

3.1. What is a stress test?

The term 'stress test' is used to refer to a range of techniques/simulations used to assess the vulnerability of an organization to major environmental changes or to exceptional, but plausible, events. The objective is to make risks to the organization more transparent by providing information about the behaviour of the organization under such circumstances.¹⁰

3.2. Benefits of stress tests

Stress tests can offer several benefits to Customs administrations, as summarized below:

- testing or evaluating preparedness or emergency plans;
- testing Customs procedures and processes, systems and readiness of staff, etc.;

¹⁰ <https://www.continuitycentral.com/index.php/news/erm-news/4071-how-to-use-stress-testing-to-increase-resilience-in-a-complex-and-uncertain-world>

- ensuring the appropriate understanding of the procedures by all Customs staff at the entry points;
- determining what are to be the Customs entry points in the event of natural disasters;
- identifying bottlenecks in the clearance process of relief consignments;
- ensuring that the main information is available to all stakeholders;
- testing systems and processes in a safe environment;
- improving coordination among Customs staff and other stakeholders (other government agencies, etc.);
- allowing participants to practice their roles and decision-making in a safe environment;
- discovering what might not work as planned at a time when no lives are in danger;
- contributing to a culture of continuous learning and improvement;
- increasing mutual accountability and transparency between Customs and other relevant stakeholders;
- developing enthusiasm, knowledge, skills and willingness to participate in emergency response;
- saving financial resources, as spending on preparedness means saving on response costs;
- gaining public recognition and trust for the emergency management process;
- allowing for training and updating knowledge;
- evaluating the decision-making process and coordination mechanisms;
- validating the instruments and processes used to collect and organize information;
- evaluating how participants react in specific situations;
- validating and providing information to improve Customs clearance procedures, with the aim of maximizing their efficiency while minimizing the impact of inappropriate or unnecessary relief.

3.3. Objectives

Stress tests can be carried out to evaluate Customs' ability to execute one or more parts of its response action plan. Many successful responses to emergencies are attributed to previous stress tests.

The value of simulations for preparedness and response is that they allow Customs administrations to use operational tools, procedures, and forms to evaluate their systems and performance. They also provide for training and for practicing tasks that require decision making and coordination. The process of evaluating the results of a simulation helps to identify critical areas of management and aspects that need to be strengthened.

3.4. Types of stress test

Customs administrations should decide which of the following tests to choose based on the objectives, resources, procedures, etc.

3.4.1. Tabletop exercises (TTX)

These are discussion-based sessions in which team members meet in a classroom setting to discuss their roles during an emergency and their responses to a particular emergency situation.

The aim is to identify major gaps or conflicts in response planning. A facilitator guides participants through a discussion of one or more scenarios. The duration of a tabletop exercise depends on the audience, the topic being discussed and the exercise objectives. Many tabletop exercises can be conducted in a few hours, and are therefore cost-effective tools to validate plans and capabilities with no real resources being used.

Table 2:

Advantages	Disadvantages
<ul style="list-style-type: none"> - Short preparation time, low cost, informal - Effective and efficient way to become familiar with policy and processes - Does not require an existing contingency plan to be in place, although this is always recommended - Can delineate policy gaps - Flexible timing 	<ul style="list-style-type: none"> - Lacks the realism of a functional exercise - Requires careful facilitation to avoid extended policy discussions

3.4.2. Drills

A test designed for a single specified operation, such as activating a notification.

The purpose of a drill is to practise specific skills, operations or functions, as an individual or in a team. The drill practices and perfects one small part of the response plan, and should be as realistic as possible, employing any equipment necessary to carry out the function being performed in the drill.

Table 3:

Advantages	Disadvantages
<ul style="list-style-type: none"> - Shorter preparation time than field exercises - Validates and reinforces training of staff in a procedure or in the use of tools or equipment - Specific individual training for a specific task - Can be repeated several times over a short duration to reinforce training aspects (reset and repeat) - Works best for simple, low-complexity tasks 	<ul style="list-style-type: none"> - Narrower scope compared to functional and full-scale exercises - Generates little evidence of bottlenecks and breakpoints in the response - Requires a task or operation to be written in a procedure or plan

3.4.3. Desktop/functional simulations

Participants simulate their actions within a simulated operational environment and must make immediate decisions, but real equipment and personnel are not deployed. Functional exercises are scenario-driven and designed to exercise procedures and resources (i.e. communications, warnings, notifications, coordination mechanisms and equipment set-up).

Table 4:

Advantages	Disadvantages
<ul style="list-style-type: none"> - Multiple functions can be practiced, tested and reviewed in a simulated realistic scenario in order to enhance the overall capability of an agency to respond to an emergency - Useful for testing hierarchies, responsibilities and chains of command - Equipment can be deployed, or emergency operations centres set up 	<ul style="list-style-type: none"> - Requires a team of people to plan and deliver the exercise - Logistics of the exercise are more complex - Planning usually takes more time - Costlier than drills and tabletop exercises in terms of facilities, finance, equipment and other resources - Can be disruptive to workplaces, particularly for those already operationally engaged

3.4.4. Full-scale simulations/field experience

A “functional simulation exercise” concentrates on the policy and interactive elements of the management of an emergency, while a “full-scale simulation” focuses on the operational capability of emergency response and management systems. Typically, this will include the actual deployment of the resources required to demonstrate coordination and response capabilities in the most realistic of settings possible without putting the safety of the public and staff at risk. This will involve higher staff, operational and insurance costs, and as well as the need to mobilize emergency resources in real time.

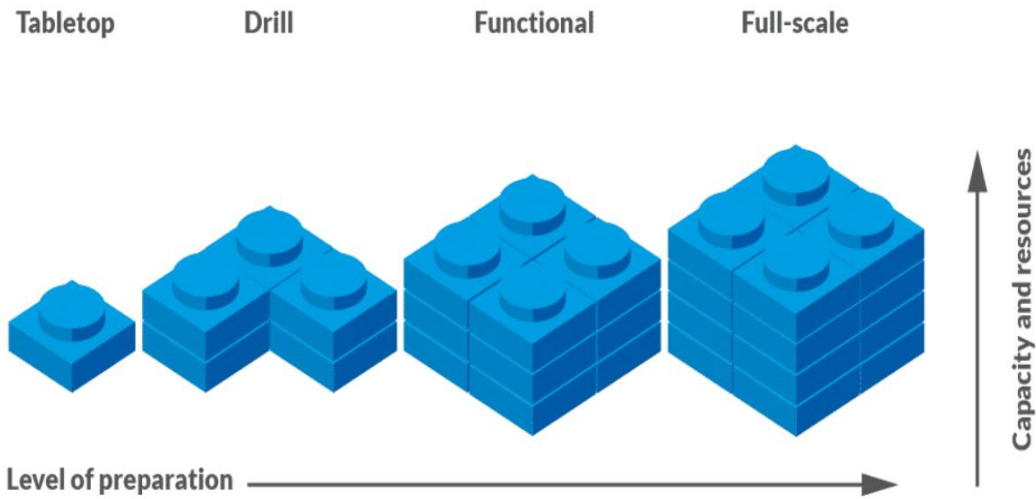
Table 5:

Advantages	Disadvantages
<ul style="list-style-type: none"> - Realistic real-time interaction and communications - Combines functional and drill activities - Allows utilization and testing of resources that are not frequently activated - Identifies bottlenecks and breakpoints in plans and procedures which can be used to significantly improve emergency 	<ul style="list-style-type: none"> - Extensive time commitment required to develop and design the exercise; it can take a year or more of planning - High costs involved and extensive resource commitment required - Increased safety risk and liability compared to other types of exercises - High impact on day-to-day work

<p>preparedness and management systems</p> <ul style="list-style-type: none">- Builds and improves relationships with other agencies and stakeholders	<ul style="list-style-type: none">- High media interest in the areas where the agency failed-
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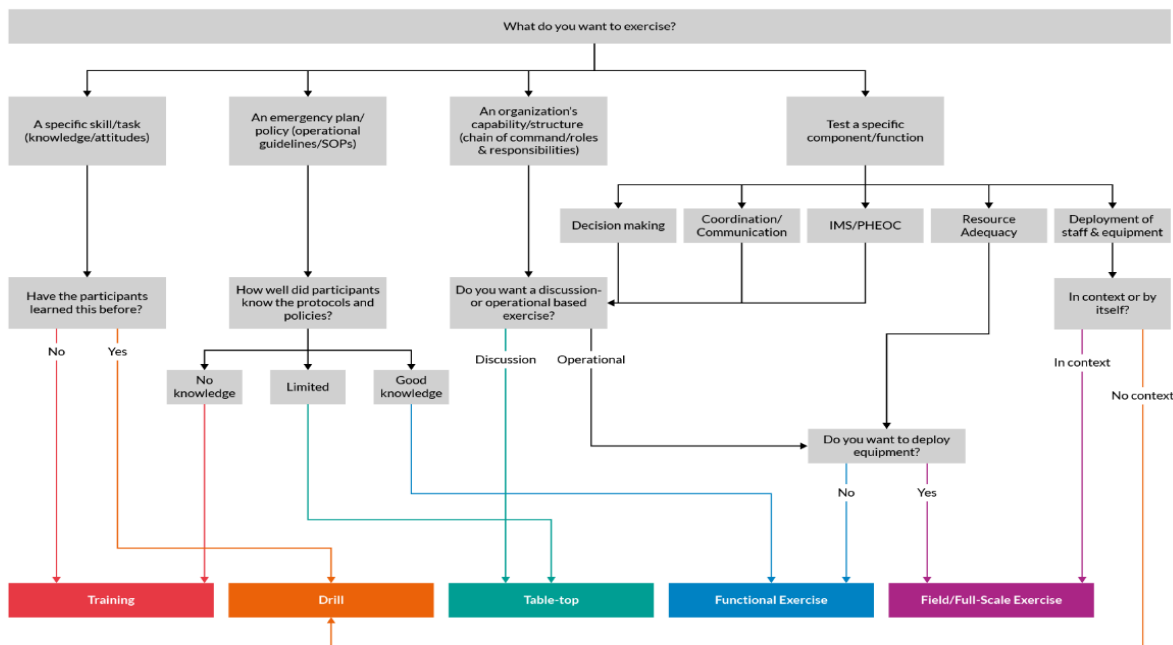
Figure 4: Level of preparation/capacity and resources for each type of stress test



3.5. Which stress test to choose?

Based on the objectives, abilities, type of threat, etc., Customs administrations can choose from different types of stress test. To select the most suitable, the goals of the test should be determined. Consultations at the internal level and with the main stakeholders should be considered before selecting the simulation type.

Figure 5: Decision tree to help in choosing the appropriate test

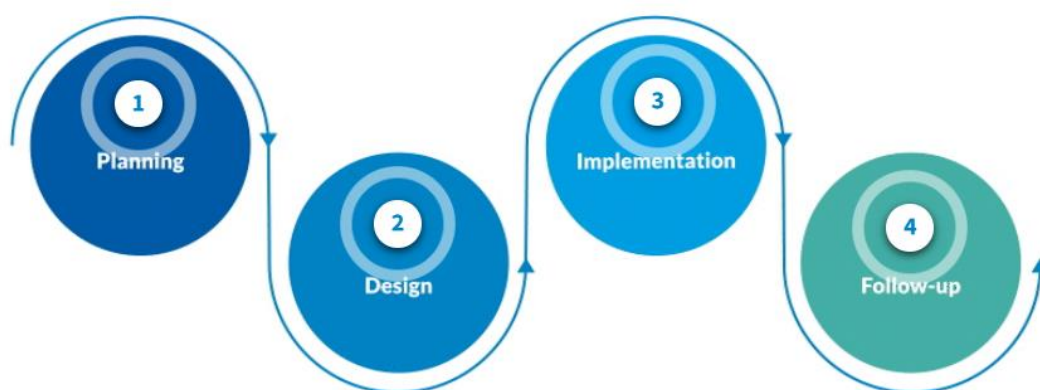


SOURCE: World Health Organization. (2017). *WHO Simulation Exercise Manual*. <https://extranet.who.int/sph/sites/default/files/document-library/document/WHO-WHE-CPI-2017.10-eng.pdf>

3.6. Steps and techniques

The 4 main steps in the stress test life cycle are: planning, design, implementation and follow-up (evaluation).

Figure 6: Steps in the stress test life cycle.¹¹



3.6.1. Planning

The planning and development of the test should focus on the following aspects:

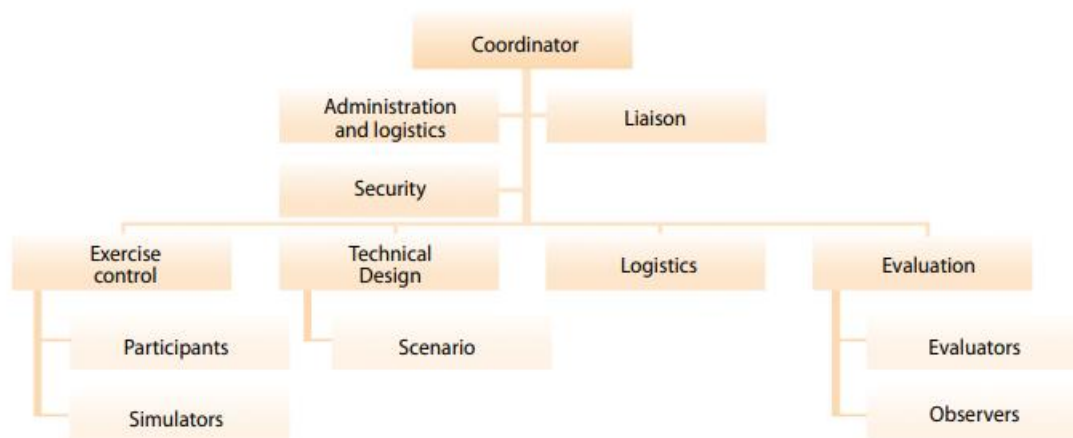
- **Team:** A facilitation team should be set up to organize and implement the exercise.

Figure 7: Organizational structure of the facilitation team¹²

¹¹ WCO e-learning module on the role of simulation exercises in enhancing operational readiness available on WCO e-learning platform CLiKC!

¹² Guidelines for the development of Emergency simulations and Drills :

<https://www.paho.org/disasters/dmdocuments/SimulationsGuide.pdf>



- **Purpose:** Establishes the reasons for, and intentions of, the stress test. The purpose should be defined in terms of a problem or need, and the wording should answer why the stress test should be carried out, as well as provide ideas for drafting the objectives.
- **Scope:** Determines the extent of the actions or effects of the activity. Defines the scale of the stress test in terms of geographic coverage, topics covered, level of complexity, participation, and types of procedures to be carried out, among other things.
- **Objectives:** The qualitative expressions of the level of performance, efficiency, product, or results to be expected from the activity. These guide the evaluation of the exercise.
- **Target audience:** The organizations and individuals who participate in the exercise. Their selection is based on the themes or issues to be validated through the drill.
- **Timeline:** The planned timing of the various activities to be carried out during the preparation and execution of the exercise. This allows those responsible to track the entire process.
- **Budget and Resources:** Identifies resources and formulates a cost plan.

3.6.2. Design

This is the process in which technical features are defined, ranging from the staging to the timeline.

- **Scenario development:** Creating the scenario is the most important aspect of stress testing, as it requires a significant amount of practical expertise and judgement to ensure the correct risks and factors are identified, together with a degree of imagination and creativity to ensure that the test is relevant, believable and viable.

The master scenario should be developed by the facilitation team, based on the identified risks of the target group/ organization and the plans that are to be tested. The scenario contains a sequence of events to lead the participants through the test.

Table 6:**Example of scenario¹³:**

A Tropical Cyclone (TC) has been identified in the southwest Indian Ocean, approximately 120 km north of Mahajanga, on the northwest coast of Madagascar. Forward motion of the TC is south-southwest at 15 km/h. Originally categorized as a 'Depression' posing a low risk to lives and livelihoods, the TC has undergone rapid intensification just 36 hours prior to landfall. With the TC now being rated as a 'Very Severe Cyclonic Storm', it is challenging to evacuate any of the villages along Madagascar's coastline. However, 10-15 villages could be evacuated before the initial impacts of the TC are experienced.

Further, the forecast track is largely uncertain – even a small shift in the track's direction can lead to landfall over 100 miles away, as in this case the track would be parallel to the coast for a longer period of time.

With 12 hours to go before landfall, 10 villages around Mahajanga have been evacuated. These include Anjajavy, Soalala and Antonibe, amongst others. The Aquamas industrial facility south of Mahajanga has also been evacuated.

SOURCE: Simulation exercise conducted by the WCO COVID-19 Project and the National Center for Disaster Preparedness, Columbia University. (February 2022). *Madagascar Disaster Trade Facilitation Exercise [PowerPoint presentation]*. Mid-term Planning Conference.

- **Logistics and documentation:** Participant safety considerations, scheduling, locations, tools and equipment.
- **Evaluation plan:** When developing the plan, it is important to address the intended objectives of the exercise, expected outcomes, and area to be evaluated in order to capture all the achievements, challenges, gaps, feedback and recommendations.

3.6.3. Implementation

The implementation process integrates and coordinates the work of different teams in developing the exercise. The process includes:

- **Set-up and administration:** Equipment needs to be checked for functionality, all material needs to be available in sufficient copies, locations need to be secure, and administrative aspects should be checked.
- **Briefing:** The briefing takes place before the start of the exercise and covers all the information and instructions needed for a successful exercise, such as:
 - ✓ Agenda of the exercise and the debriefing;
 - ✓ Brief introduction to simulations in general;

¹³ <https://news.climate.columbia.edu/2022/04/04/in-madagascar-a-hurricane-simulation-transforms-into-real-life-disaster-response/>

- ✓ Purpose, objectives and target of this simulation;
 - ✓ Characteristics, scenario, phases, and scenario update;
 - ✓ Division into groups and communication flow;
 - ✓ Introduction of the facilitation team, simulation rules and guidelines;
 - ✓ Examples of injects¹⁴: the information that participants will receive during the exercise. The injects will provide information and updates for participants to assess.
 - ✓ Supporting documents, and how they work.
- **Kick-off:** The facilitation team establishes the context of the exercise with the first inject to all participant groups. This can include some background information and/or information about the current situation at the start of the simulation.
 - **Release of the injects:** This follows the pre-defined sequence/chronological order. The reaction of the participants determines whether the narrative of the scenario should be maintained or adapted, and also whether the tempo/sequence of the injects is too tight or not. During the exercise, the facilitation team should announce “time jumps”, i.e. a new phase, to ensure participants stay connected and advance in their tasks in a timely manner.
 - **Facilitation and exercise control:** The facilitation team only supports the exercise, and does not dominate the testing of the plan.
 - **Monitoring:** What are the participant responses to key event injects? Are participants finding creative response solutions that were not previously part of the plan? Are they working well?
 - **Roles:** Implementation of the exercise requires the involvement of several players with different roles, as listed below:

Table 7¹⁵:

Work area	Tasks
Team responsible	<ul style="list-style-type: none"> • Establish and coordinate the teams responsible for different tasks in the preparation and execution of the simulation. • Approve the premises for and all parameters of the exercise according to the items to be tested. • Direct the internal and external activities before and during the exercise. • Coordinate the self-assessment of the overall process of organizing the exercise. • Prepare the budget. • Coordinate documentation on lessons learned from the exercise. • Prepare the relevant reports, including the financial report.

¹⁴ <https://www.ncsc.gov.uk/guidance/effective-steps-to-cyber-exercise-creation>

¹⁵ <https://www.paho.org/disasters/dmdocuments/SimulationsGuide.pdf>

Exercise controller	<ul style="list-style-type: none"> • Review functional and methodological details for execution of the simulation with other teams. • Ensure that all resources and details have been addressed for the exercise. • Ensure that all participants understand the methodology and expected tasks of the exercise • Oversee the development of the different events and the time periods that elapsed during the exercise, following the script.
Participants	<ul style="list-style-type: none"> • Perform the assigned tasks and follow procedures as they pertain to participant specialties.
Simulators	<ul style="list-style-type: none"> • Act as simulated characters according to the roles assigned.
Technical Design Team	<ul style="list-style-type: none"> • Develop the script of the exercise and prepare all the related devices. • Determine the logistical requirements for the exercise in accordance with the script.
Scenario Team	<ul style="list-style-type: none"> • Design the scenario of the likely effects in collaboration with a team of specialists on topics related to the event being simulated.
Logistics Team	<ul style="list-style-type: none"> • Ensure the availability of facilities and equipment. • Provide the necessary supplies for the working groups. • Provide adequate transportation for participants, guests, simulators, evaluators, and observers. • Ensure the efficient and timely availability of all the resources required for the development of the simulation, including the purchase of the necessary supplies and materials.
Evaluation Team	<ul style="list-style-type: none"> • Know the details of the script and all related mechanisms for the exercise, especially the evaluation instruments. • Evaluate the decisions taken by participants during the exercise in accordance with the script and expected actions, and use evaluation instruments to record the observations. • Conduct the plenary session of the exercise evaluation. • Provide a final exercise evaluation report to the coordinator.
Evaluators	<ul style="list-style-type: none"> • Use the evaluation forms during development of the simulation. • Participate in the plenary analysis sessions and evaluation sessions. • Give explanations for the criteria used in the simulation evaluation form.
Observers	<ul style="list-style-type: none"> • Observers have the experience or level of authority to evaluate specific processes or activities, and are part of the evaluation team. • Participate actively during the exercise and present general evaluation criteria during the plenary analysis session immediately following the exercise. • Observers may use specific observation guidelines or use their own criteria based on their experience.

3.6.4. Debriefing

The feedback and recommendations captured during the debriefing and evaluation session are recorded in a post-simulation report. Feedback could, for example, include: duplication of document requests, lack of information, insufficient understanding by the stakeholders of their roles, lack of coordination, lack of logistics and equipment, etc.

The post-simulation report includes a summary of achievements and challenges, and a concrete action plan for strengthening emergency preparedness and readiness levels.

The report is used by the various participating groups to update their plans, streamline systems and improve policies.

This may take some time. To check on progress and keep momentum going it may be advisable to organize a meeting three to six months after the exercise, bringing key participant groups back together to review the changes that have been made and discuss what still needs to be done.

4. Conclusion

The increasing number of natural disasters in recent years combined with the impact of the COVID-19 pandemic has contributed to raising awareness of the importance of enhancing the preparedness of Customs administrations. In order to respond effectively to the impact of any disruptive event, it is crucial to have a preparedness and response plan to facilitate organized and coordinated actions in the aftermath of an event and ensure the continuity of operations.

For the plans to be useful and robust, they must be tested frequently in order to ensure they are evaluated, adapted, and updated before and after an actual event. Simulation exercises are among the most useful tools for evaluating and testing plans, for training personnel and developing team work, for evaluating tools and procedures, and for decision-making exercises.

Customs administrations that have little or no experience in drafting business continuity plans and carrying out stress tests can use this guide to provide a sound basis for these exercises.
