APEC TRADE RECOVERY PROGRAMME

Counter Terrorism Task Force

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PREFACE

In 2006, APEC Senior Officials and Leaders agreed that total supply chain security would be a priority for 2007 and endorsed the initiative for a study by APEC economies to address the resumption of trade in the event of a major disruption to the supply chain.

The study to develop a framework for a Trade Recovery Programme (TRP) was undertaken by a group of experts (please see APPENDIX A for list of participants) from ten APEC economies led by Singapore, viz. Australia; Brunei; China; Indonesia; Japan; Korea; New Zealand; the United States of America and Viet Nam. The study group met on three occasions between February and May 2007 to develop the TRP framework which APEC economies could consider adopting to facilitate the recovery of trade. Booz Allen Hamilton was engaged by Singapore as consultant to assist the study group.

The TRP establishes principles and guidelines that will facilitate the restoration of trade among APEC economies as rapidly as possible after a terrorist attack and provides actions that will facilitate trust and confidence in the process. This framework consists of three major sections – TRP Concept, TRP Pillars and TRP Implementation Approach. The Concept section develops the rationale for a TRP and lays out the key principles, scope and requirements for an effective programme. The Pillars section suggests some key elements and guidelines designed to assist economies in implementing the TRP. The Implementation Approach suggests methodologies to structure an actual relationship between the economies.

To date most of the efforts on supply chain security have been on the prevention of terrorist attacks. Should prevention fail, the impact on APEC economies from the loss of trade caused by such an attack, as demonstrated by studies conducted in 2002 and 2006, is estimated in the hundreds of billions of dollars. A primary finding of the 2006 Economic Impact Study commissioned by Singapore was that the time factor was a major determinant of the magnitude of the resulting impacts, viz., any delay in trade resumption would have an exponential effect in loss in trade and Gross Domestic Product (GDP), not just of the event economy, but also that of its trading partners. Thus, speed, confidence and trust were determined to be the essential factors in developing the TRP.

The proposed TRP, as developed by the study group, advocates a risk-based, total supply chain security approach, which emphasizes the need to share the responsibility of ensuring the security of trade across all nodes of the supply chain, and between public and private entities. The TRP focuses on post incident measures for the facilitation of trade recovery. It does not address preventive measures or actions which APEC economies are already undertaking on their own or through other multilateral efforts, but is predicated upon the existence of adequate pre-event preparations, such as establishing trusted trade relationships and mutual recognition arrangements. The proposed TRP actions and guidelines were developed in a manner that is not intended to be prescriptive. Where appropriate, they leverage on other existing international guidelines such as the World Customs Organisation's (WCO) SAFE Framework of Standards (FoS), and the International Ship and Port Facility Security (ISPS) Code, as well as ISO 28000, 28001. In addition, where domestic and regional supply chain security initiatives are already being undertaken or pursued by APEC economies, the TRP is intended to complement such initiatives rather than displace them. As a result, the TRP offers opportunities to build on existing efforts, expand existing agreements, and extend tangible benefits to both partner economies and the private sector.

CHAPTER 1
TRADE RECOVERY PROGRAMME CONCEPT

1.1 INTRODUCTION

A study conducted in October 2006 to ascertain the economic impacts on 12 APEC economies of a U.S. port shutdown concluded that "the estimated economic impact – measured in export and GDP loss - is significant, where the magnitude of the economic impact increases dramatically with the length of time of the trade disruption..."[1]. A prolonged closure of transportation hubs would potentially result in a global recession by slowing international trade and reverberating throughout trading partners' economies.


Figure 1: Three Year Cumulative Loss of GDP

Figure 1 shows the combined, potential economic impact, measured in lost GDP, of U.S. port closures on 12 APEC economies and the U.S. under 15, 30 and 60-day scenarios[2]. After a protracted period of diminished trade activity due to closures, the estimated impact measured in loss of GDP increased substantially, to nearly US$500 billion. Using the 30-day equivalent scenario, the ripple impact on the 12 economies alone (less the U.S., the event economy) was estimated to be US$137 billion in lost GDP and US$159 billion in reduced trade. The interdependence of the global supply chain means that a terrorist attack on a port and the resultant reactions will have far-reaching consequences beyond the economy where the event takes place. Unlike other trade disruptions, a terrorist attack carries with it the expectation that other attacks may be planned for the near-term, or that "copy-cat" attacks could occur at other locations. Consequently, there is an overall heightened sense of risk affecting the trade community and there may be additional security measures enacted which impact trade beyond the event economy[3]. Depending on the type of terrorist attack, there is also the potential for latent effects due to the incident, such as biological or radiological exposure to cargo and personnel. As economies scramble to implement new procedures, ships wait at anchor, trade slows down, and losses build up. A 2002 Booz Allen Port Security Wargame demonstrated, and the above-mentioned study confirmed, that every day of backlog generated due to diminished trade activity requires multiple days for restoration.

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1 "A Study of the Impact of Trade Disruption on Asia/APEC Economies Due to a Closure of U.S. Ports" estimated impacts on China, Hong Kong, China, Japan, Korea, Indonesia, Malaysia, New Zealand, Philippines, Singapore, Thailand, Viet Nam, Australia, and the U.S. The work was commissioned by the Ministry of Transport (MOT) of Singapore and performed by Booz Allen Hamilton.
2 The scenarios were computed based on the total number of days that trade activity was **diminished** and should not be interpreted as 100% shut down for the duration.
3 An "event" economy is defined here as an economy or economies in which the terrorist event occurred. Trading partners are referred to as the "non-event' economies.

The ability of an economy to *minimize the time that trade is disrupted* and to *contain the system impacts* will directly reduce the resulting economic loss. While the potential loss to infrastructure is great, it is the ripple effects of trade disruption that create the largest economic impact. The complex nature of today's trade system, really a "system of systems", means that all components of that system are dependent upon one another for safe and secure trade. This is particularly true of containerized trade, where goods are handled multiple times, shipments are consolidated, and vessels carry cargoes from multiple sources. The vulnerabilities of a single node in the network become the vulnerability of the entire network. The economic danger of a terrorist event is shared by all.

1.2 TRADE RECOVERY PROGRAMME

The Trade Recovery Programme (TRP), through establishment of clear plans of action, model guidelines for actions, and robust communications, promotes the restoration of trade activities as quickly as possible after a terrorist event. The TRP will be effective if it is grounded on the principles of building trust and ensuring transparency[4].

TRADE RECOVERY PROGRAMME (TRP) DEFINED

The TRP is a set of plans, procedures, and arrangements developed to identify and address specific actions needed following an event that disrupts trade operations. The TRP is a framework for coordination among economies and relevant stakeholders to streamline the resumption of the flow of trade in as efficient and timely a manner as possible.

The TRP addresses the complexity of the international supply chain by using a network approach to identify impediments to trade resumption, and focuses on removing obstacles to rapid trade recovery in a holistic and coordinated manner across the supply chain.

The TRP is a flexible, comprehensive programme that allows elements to be applied under varying circumstances for any number of participating economies. The TRP leverages on, rather than precludes, domestic security programmes or individual asset-based protection efforts implemented by governments or commercial entities. It is not targeted towards prevention; rather its emphasis is on *restarting the flow of trade* as quickly as possible following a terrorist act. Although the TRP is focused on post-event recovery actions, for maximum effectiveness, economies may also consider relevant pre-event preparations and mutual arrangements which would help establish trust relationships. The implementation of the TRP *minimizes the time that trade is disrupted* and helps *contain the system impacts*, two key elements to reducing the expected economic loss indicated in the aforementioned study.

1.2.1 The Complexities of a Trade System Require a System Perspective

Modern supply chains involve a series of parallel, independent activities that must converge at the right times to move cargo and commodities efficiently. These activities are carried out by multiple participants, most of whom do not have visibility of the entire chain, but all of whom are affected by economies' domestic policy decisions. Figure 2 is a high-level representation of the participants in the international supply chain, although for any given transaction the make-up and number of participants may vary depending upon multiple factors, e.g., type of goods being shipped, origin and destination, and the financial complexity of the transaction. It is this variance on a transaction-by-transaction basis that causes supply chains and global trade to be a continually evolving "system of systems".

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4 *Transparency* is defined for this purpose as the condition that allows teams/partners to understand the processes, objectives, decision rights and timing of events.
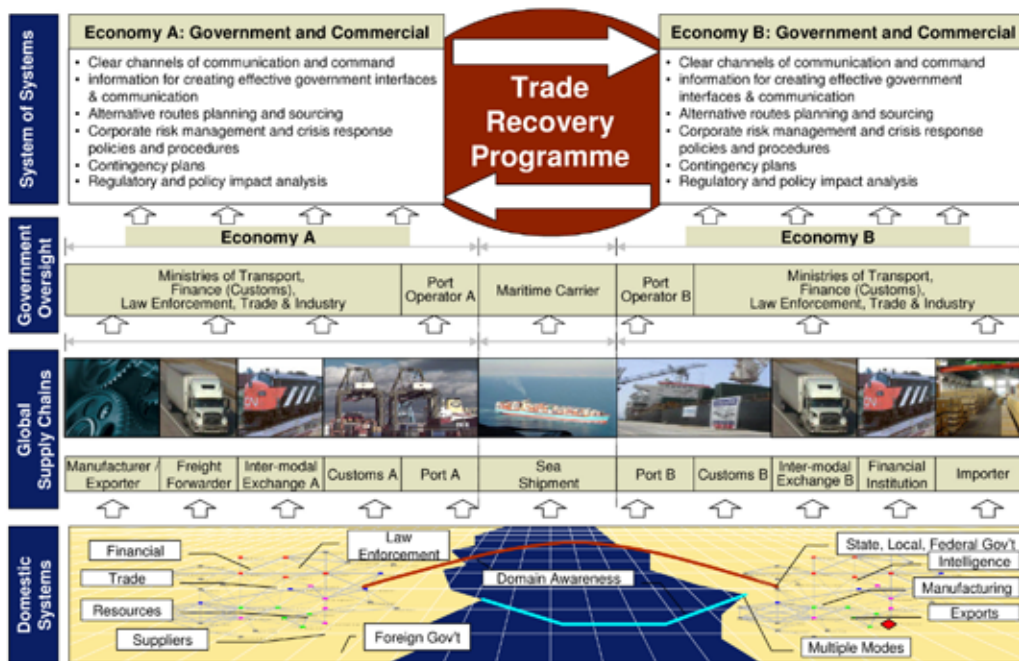
Figure 2: The Trade System is a "System of Systems"

1.2.2 Principles of the Trade Recovery Programme

The TRP adopts a network approach and is built on the principles of **building trust, ensuring transparency and fostering open communication**. An economy that employs these principles will benefit from more rapid resumption of trade should an attack occur on one of its ports or the port(s) of one of its trading partners, than an economy that does not adopt these principles. As such, the development of this Programme is driven by the following imperatives:

- The need for a comprehensive solution that addresses foreseeable risks
- The concept of shared responsibility for risk management with public and private entities
- The importance of trust among partner economies
- Facilitation of sharing of relevant information to maintain an environment of transparency
- Identification of key impediments to trade resumption with a view towards minimizing or removing them

1.3 PROGRAMME STRUCTURE

The Trade Recovery Programme (TRP) is comprised of three chapters as shown below.

- This chapter, the *TRP Concept*, outlines the framework of the TRP.
- The *TRP Pillars* elaborates on the specifics of the programme and contains a logical sequence of trade recovery actions and model TRP guidelines.
- The *TRP Implementation Approach* contains the Study Group's suggestions on how APEC economies could choose to move forward in implementing the TRP, within a pathfinder framework.

The TRP identifies the elements of restoration that economies must address together, but does not address the elements that are covered by economies' domestic policies. This does not preclude trading partners from requesting verification that the supply chain is indeed secure. Trading partners need to be aware of the potential impediments associated with the re-establishment of trade with the event economy.

The Trade Recovery Programme, as shown in Figure 3, has a foundation of building trust and ensuring transparency and consists of three main pillars – a Plan of Action, Model Guidelines, and Communications.

Plan of Action	• A logical sequence of steps that the event and non-event economies should take following an attack
Model Guidelines	• A shared framework for post-event actions consistent with industry best practices
Communication	• Facilitation of relationships to establish trust and demonstrate transparency

Together, these pillars will allow economies to work together to encourage the rapid resumption of safe and secure trade in the aftermath of a terrorist event.
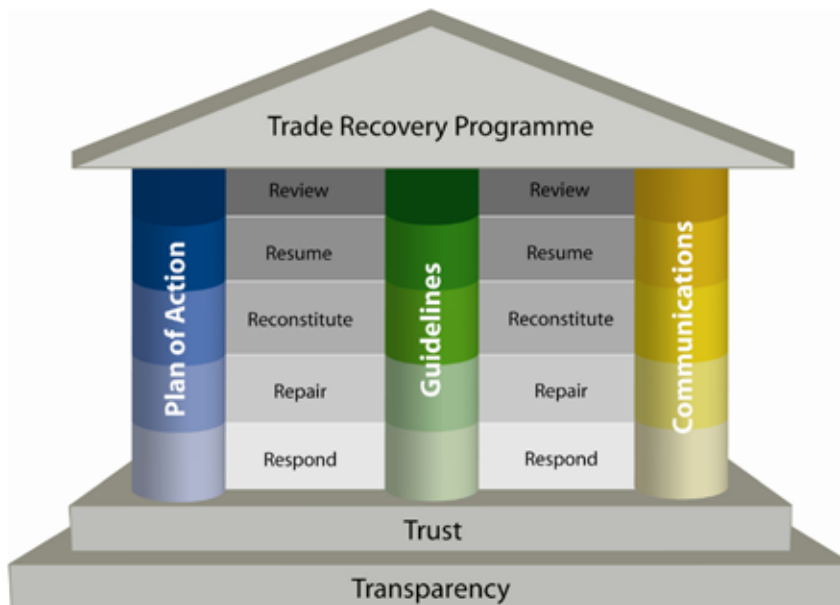
Figure 3: Trade Recovery Structure

Following an event, economies will immediately initiate measures to address the real or perceived gap that led to the incident. As a result, port or supply chain security will likely be changed. A Plan of Action gives a clear guide to stakeholders as to steps to be taken and limits potentially counterproductive unilateral reactions following an attack. Model Guidelines provide a common framework from which economies can develop an understanding of recommended measures in the aftermath, thus facilitating the most rapid recovery. Lastly, Communications is the primary mechanism to establish transparency among trading partners and to engender trust in the security of the supply chain. With a well thought out course of action, defined guidelines for expected performance to facilitate resumption of trade, and more robust communications and transparency, trade will resume more efficiently. As a result, the economic impact of a terrorist attack should be reduced.

The following sections will provide amplifying information about these pillars, why they are critical to the success of the TRP, the main components and associated processes under each pillar.

1.3.1 Plan of Action

Description The sequence of steps that participating economies should take immediately following an attack that will initiate the TRP and begin the process for re-establishment of trade.

Rationale Having a specified set of procedures that participating economies can quickly implement following a terrorist event prevents counter-productive, unilateral reactions; increases transparency of actions; and gives partner economies clear expectations. The Plan of Action pillar also:
- Identifies actions to be taken to initiate trade recovery under this programme
- Provides for partner economies to be integrated in their approach to trade recovery
- Provides the other pillars (Model Guidelines and Communications) a clear framework for developing detailed actions and expectations

Components This pillar lays out a logical sequence of steps for event and non-event economies to take following a terrorist attack. The TRP will address only those activities that extend beyond domestic actions and have direct application to trading partners, except where those actions have direct bearing on trade resumption efforts. It will not address business continuity, first responder actions, or similar domestic programs. This plan of action is broken into five phases as shown below.

Phase	Description
Respond	Actions in the immediate aftermath of an event. Focuses on characterizing attack, containing effects, determining source, communicating impacts.
Repair	Actions taken to identify and address security gaps and vulnerabilities to mitigate risks of similar attacks. Trade contingency plans are used to inform partners of expected actions (port shutdown, reduced throughput, limit on certain cargoes, etc).
Reconstitute	Actions taken to bring trade system back to a steady-state condition, which may be a return to previous operational condition or may be a new baseline.
Resume	Full restart of trade operations. Lifts any interim measures, implementation of new procedures, and clearing of any backlogged cargo.
Review	Comprehensive study of actions taken and results achieved aimed at improving plans for future events.

Development This pillar will be developed by establishing:
- A representative plan of action that addresses steps to be taken by economies following an event that disrupts the supply chain and halts the flow of trade
- A process map that identifies the principal areas of action, linkages among the event and non-event economies, and actions to be taken
- How the action steps relate to each other and how they fit into the broader phases of recovery

1.3.2 Model Guidelines

Description   TRP Model Guidelines are actions that are pre-established and consistent with applicable industry standards (where available). They provide the added assurance of trust and transparency needed to support a TRP.

Rationale   The Model Guidelines pillar provides a common framework and understanding of what must be done in order to achieve port security, trade resumption and continued trade facilitation.   The Model Guidelines pillar also:

- Establishes pre-determined security measures and procedures to be invoked during post-event periods of heightened risk
- Is necessary to enable economies to address issues jointly
- Includes measures based upon established international and industry standards
- Establishes the assurance that measures taken will balance trade security and trade facilitation

Components   The items below are addressed in this pillar.

Included	Description
Container/Cargo Management	Mutually defined arrangements for assurance of safe and secure cargo operations
Security Management	Arrangements that address identification and prioritization of potential security hazards and impediments to rapid resumption of trade. Procedures to identify and mitigate risks of secondary attacks
Incident Management	Integration of recovery efforts so the event economy can request assistance. Partner economies have assurance that actions are in accordance with recognized procedures / measures

Not-Included	Description
Domestic Response	First responder actions
Domestic Recovery Procedures	Recovery of infrastructure, replacement of labor or services
Domestic Law Enforcement/ Investigation	On-scene, post-event forensics or criminal proceedings. Intelligence gathering or anti-terrorism operations

Development   This pillar will be developed by establishing:

- Practical measures that could be included as suggested model guidelines for economies to consider and adopt

- Assumptions that provide a framework from which economies can build the TRP

- A set of recommended tangible benefits so as to strike a balance between trade security and trade facilitation

- Guidelines for integrated response, promoting collaboration among economies for any adjustments in security, procedures, scanning, etc.

- Guidelines that encourage trust and transparency during post-event activities

- Guidelines for identifying and mitigating impediments to rapid resumption of trade, such as the challenge of dealing with mixed (viz., trusted and non-trusted-source cargo) shipments

- Guidelines to identify and mitigate the risk of a secondary attack

- Guidelines that set the framework for the dissemination of information and establish communication procedures to be implemented during and after an event

1.3.3 Communications

Description Addresses all of the relationships, interactions, and exchanges that need to exist in order to implement the programme.

Rationale Communication is the vital link that enables economies to develop trust and demonstrate transparency, both of which are key to restoring trade following an event. Communication is the mechanism by which relationships will be formed prior to an event and actions and assurance will be coordinated following an event. The Communications pillar also:
- Identifies stakeholders and establishes relationships in order to adapt guidelines to specific economies
- Provides the basis for coordinated actions during crisis management and recovery

Components This pillar focuses on the information sets that support the formation of trusting relationships among economies so that if an event occurs, the economies have in place a framework to act together to restore trade.

Included	Description
Economy-to-Economy Communication	Mechanisms between economies to implement the TRP
Economy-to-Business Communication	Mechanisms between public and private sector to implement the TRP

Not Included	Description
Technology Solutions	Specific tools used for exchange of sensitive security information (e.g., secure transmission mediums [video & voice over IP, etc.] & standards [telecommunications & IT standards])
Domestic Communications	The collaboration and interaction of governmental departments for internal preparedness and recovery from an event
Economy-to-Public Communication	Communication of threat and incident information to the public
Business-to-Business Cooperation	The collaboration and interaction of private entities

Development This pillar will be developed by establishing:
- Expected data sets for exchange of information
- Clear lines of communication from one economy to another, based on specific scenarios and issues
- Details for economy-to-economy and economy-to-business sharing of relevant information regarding the incident and trade recovery actions
- Established communication arrangements, including points of contact
- Procedures for review of the actions taken and the update of the TRP

CHAPTER 2
TRADE RECOVERY PROGRAMME PILLARS

2.1 TRP PILLARS

This chapter elaborates on the three pillars of the TRP framework. Where possible, the measures suggested in this chapter leverage on existing international frameworks, customizing measures that meet the unique needs of restarting the flow of trade after a disruptive event.

2.1.1 How the pillars fit together

The Plan of Action establishes a logical flow of events that is expected to occur following a terrorist incident. By establishing a common understanding of what will occur in the event of an attack, the Plan of Action offers economies a baseline from which to operate with a fairly high degree of predictability, especially if other economies are taking similarly appropriate actions. For instance, the Plan of Action assumes that economies will take a risk management approach in responding to an attack, and that they accept the need to balance security requirements with the imperative to ensure the continued flow of international trade. Thus, the TRP Plan of Action assumes that an economy's first response when faced with an attack will not be to entirely shut down its ports or immediately impose 100% screening of inbound containers. Rather, it would carefully assess the specific threat in a measured fashion to allow the continued flow of trade. Resources would be focused on the areas of highest risk/vulnerability and the movement of low risk cargo would be facilitated.

The process map in the Plan of Action section, as shown in Figure 4: Scenario Process Map (page 17), provides a visual representation of the action steps laid out in the Plan of Action and the link between these steps with the Model Guidelines and Communications pillar. By looking at the process map, one obtains an overview of the points in the recovery process at which it is necessary to coordinate and communicate actions to facilitate trade recovery. These specific points give rise to Model Guidelines for these activities.

The TRP Model Guidelines thus correspond to specific points in the recovery lifecycle which require international coordination, and provide a common understanding of what must be done in order to achieve mutual assurance of measures undertaken by partner economies.

The Communications pillar is intimately connected to both the Plan of Action and the Model Guidelines. Effective communications is a key assumption of the Plan of Action and a crucial element at many points in the recovery process, as is evident in the process map. Similarly, details of what information economies need to communicate form a key part of the Model Guidelines.

2.1.2 Phases of Recovery

In order to focus on recovering from a terrorist attack, the TRP outlines five phases – Respond, Repair, Reconstitute, Resume and Review - that span the three pillars, as shown in Figure 3: Trade Recovery Structure (page 6). The phases represent a recovery "life cycle," while the pillars provide a construct consistent across the life cycle. Although these phases are largely sequential, they are not entirely exclusive. Actions taken in one phase may overlap with another. They are focused solely on post-event recovery, and aimed at creating an expeditious path to avoid undue disruption in the flow of trade.

RESPOND

This phase occurs immediately after an event and focuses on characterizing the attack, containing its effects, determining the source, and communicating the impacts. Steps taken in this phase will help determine whether or not to activate the TRP. In this phase, economies undertake some of the immediate actions necessary to minimize event impacts, including the identification of affected containers and physical locations, the isolation of affected containers, and the implementation of interim security measures. If the TRP is activated, the steps in this phase will help to determine what types of shared activities will be needed by the participating economies, and will help provide an indication of how TRP-related communications could aid in minimizing the disruption of trade flows.

REPAIR

The Repair phase represents the actions that will need to be taken to identify and address security gaps and vulnerabilities to mitigate risks of similar attacks. In addition, TRP-related steps taken during this phase will focus on informing trading partners of expected actions (e.g. reduced throughput, limits on certain cargoes, redirection to alternate ports of entry, etc.) Thus, steps within the Repair phase may take place in parallel with steps from the Respond or Reconstitute phases.

RECONSTITUTE

The Reconstitute phase is represented by actions taken to bring trade flows back to a steady-state condition, or as near to it as possible, after initial repairs have progressed sufficiently to begin to allow for a modified level of trade. During this phase, new procedures may be established, and coordination and communication among economies on the new procedures will be necessary.

RESUME

The Resume phase represents the achievement of a full restart of trade operations, when desired steady-state conditions have been determined and can be achieved. Any interim measures may be lifted, and the implementation of new procedures may need to be reassessed. In this phase, economies should continue to work to resolve any residual issues and constraints caused by the terrorist event.

REVIEW

The Review phase begins after trade flows have returned to a steady-state condition. This phase aims to take a critical look at the actions that were taken during the preceding phases and its results, so as to identify and share, where appropriate, lessons learned with a view towards improving plans and actions for future events.

2.2 PLAN OF ACTION

The Plan of Action is the sequence of activities that economies should take immediately following a terrorist attack significant enough to initiate the TRP, in order to begin the process for re-establishing trade. The over-riding consideration in the proposed Plan of Action is to be able to allow economies to have an effective and efficient basis to segregate cargo into high-risk and low-risk categories, so that the appropriate mitigation and risk-management measures can be applied to allow for rapid resumption of trade given the limited available resources to deal with the security challenges in a post-attack situation.

In order to develop this sequence of activities, a generic scenario (as shown in Table 1: Scenario Details on page 16) was developed to represent a significant event capable of causing major trade disruption. While there are innumerable permutations of potential terrorist scenarios, planning around a carefully selected generic scenario derived from a spectrum of scenarios provides a useful focus for capturing the insights and actions needed to address the range of potential terrorist attacks. While there will naturally be differences between different threat scenarios, the guidelines suggested in the next section (Section 2.3 Model Guidelines) were assessed to be consistent with and applicable to most plausible scenarios. From this generic scenario, a process map (as shown in Figure 4: Scenario Process Map on page 17) was developed to lay out visually a sequence of logical activities likely to be undertaken by the event economy in the aftermath of an attack, as well as shared activities to be undertaken by all of participating economies in the TRP. The activities are shown in the process map.

The Process Map uses colored text to distinguish the categories of activities under the Model Guidelines and Communications Pillar. Blue text denotes Container/Cargo Management, green text is used for Security Management, grey text is for Incident Management (and domestic activities), and red text is for the communications required.

The steps for the TRP Plan of Action are intentionally discussed at a high level and focus on recovery, not on the details of infrastructure restoration. Some of the actions are also domestic in nature and would be left to each economy to implement on their own based on their domestic requirements and context, but are listed in this chapter for completeness and to facilitate a clear understanding of the process involved. These domestic activities, indicated in the process map in grey text, fall beyond the scope of the TRP. No TRP guidelines were created for these domestic activities, but there are communications details for economies to use in disseminating information to other economies to give an understanding of progress being made to address the threat and resume normal trade.

2.2.1 Baseline Scenario and Process Map

Table 1 shows the details of the baseline scenario that was developed to represent a situation that would cause a significant disruption to trade. The scenario chosen was a chemical, biological, or radiological (CBR) attack on ports in more than one economy, coupled with the threat of additional attacks. The resultant process map, Figure 4: Scenario Process Map, illustrates the action sequence from which model guidelines are derived.

Scenario:	Two or more CBR devices are shipped in containers and arrive in separate ports of multiple economies (Economy A, B, etc.). The devices are activated and it is made known that more may exist in other economies. Contamination may or may not exist at port terminals of event economies. There is moderate damage to infrastructure in both ports.
Threat Vector:	The devices are shipped in containers on separate vessels. Vessels originate from the same or different foreign ports.
Location of Attack:	Private Terminal, Port A, Economy A Private Terminal, Port B, Economy B
Reaction:	▲ Event economies initiate TRP process ▲ Economies may, in consultation, decide to close port(s), limit access and divert incoming ships ▲ Access to the affected port or port area is limited to emergency management and senior port management personnel ▲ Affected cargo and personnel undergo decontamination ▲ Economies may put additional screening and scanning measures in place for all imports ▲ Port infrastructure of event economies requires repair or decontamination ▲ Additional information requirements (manifests and crew) may be considered ▲ Port operations in non-event economies are reviewed and where necessary temporarily restricted; trade flow may be temporarily affected ▲ Event economies and non-event economies will agree on the security & scanning measures necessary and common risk profiles for risk assessment ▲ High risk cargo would be segregated from low risk cargo with economies giving priority to low risk cargo clearance

Table 1: Scenario Details

Activity Flow →

	Respond	Repair	Reconstitute	Resume	Review
Event Economies	Request Initiation of TRP				
	Characterize Attack Type/Vectors	Conduct Damage Assessment	Restore Infrastructure	Increase Operations/Capacity of Affected Port(s)	Review Actions & Results
	Identify Affected Containers	Identify Security Gaps/Vulnerabilities		Establish Route Changes	
	Isolate Affected Containers	Screen/Scan Containers	Process Containers		
		Collaborate on New Screening/Scanning Measures		Implement New Screening/Scanning Measures	
	Determine Impact on Port Operations	Commence Joint Investigation			
	Identify Potential Risks		Decontaminate Infrastructure and Cargo	Process Contaminated Containers	Update TRP Plan of Action
	Implement Interim Security Measures				
Shared Activities	Initiate TRP		Collaborate on New Security Measures	Implement Updated Security Measures	
	Execute Emergency Response/Trade Contingency Plans	Collaborate on New Operating Procedures		Implement New Operating Procedures	
		Establish and Maintain Joint-Communication with Partners			
Other Econ		Receive Updates from Event Economies			Review Actions & Results

Legend: **Blue Text = Container/Cargo Management**   Grey Text = Incident Management (Domestic)
Green Text = Security Management   **Red Text = Communications**

Figure 4: Scenario Process Map

2.3 MODEL GUIDELINES

The action steps requiring coordination, as laid out in the Plan of Action process map, translate into the Model Guidelines and the Communications Pillar. The Model Guidelines are categorized into Container/Cargo Management, Security Management and Incident Management.

Category	Description
Container/Cargo Management	Steps related to the screening, scanning, movement, routing, isolation, decontamination, and clearance for customs purposes.
Security Management	Steps aimed at coordinating physical security measures, personnel security measures, and information security measures.
Incident Management	Steps related to the incident, and focused on the handling of the containers, personnel, and conveyances affected or potentially affected by the event.

Table 2: Action Step Categories

Each activity in the process map has underlying assumptions that provide a reference from which the activity was outlined. For example, an assumption may be that an economy has a response organization, or some level of scanning technology to carry out proposed actions. These assumptions are summarized at the beginning of each section and are not meant to be prescriptive or to imply that a lack of these resources would preclude the participation of a given economy in the TRP. However, the assumptions are necessary to start from a common understanding. These assumptions are detailed in the Model Guidelines section.

The Model Guidelines are intended to be pre-established, documented and consistent with industry and existing international guidelines where applicable, such as:

- *ISO/PAS 28001*:2006 (E) (Guidelines A-C)
- *ISPS Code* (Parts A & B, SOLAS Amendments, 2002, Port facility security plan, handling of cargo)
- *WCO Framework of Standards* (Standard 1.3.5, 1.3.8, Standardized Risk Assessment document, General High-Risk Indicator document, Risk Management Guide).

The TRP Model Guidelines build upon these international guidelines, and apply them, where applicable, in the context of trade recovery. They include activities to be taken to balance security and trade facilitation, promote rapid trade recovery, encourage trusted and transparent relationships, and lessen the economic impact of an event.

As with the overall TRP, the Model Guidelines are not meant to be prescriptive. They are intended to provide a frame of reference for economies to concur on how established international guidelines can be applied and new procedures be established to aid recovery from a terrorist event. Participating economies that follow the Model Guidelines can be assured of some level of predictability in the actions of fellow participants, thereby minimizing the ripple effect of a terrorist event, and can move with greater assurance toward re-establishing trade flows.

The overall goal of the Model Guidelines is to minimize the time it takes to begin the recovery process, and streamline the time it takes to return as closely as possible to pre-event levels. Significant efficiencies can be gained by taking these steps as early as possible following an event, thereby reducing the overall economic consequences of an event, especially in cases where pre-incident relationships have been firmly established.

2.3.1 Container/Cargo Management

The TRP is based on the idea of bilateral or multilateral cooperation in control procedures which involve cooperation among economies on risk assessment and physical controls so as to facilitate screening, scanning, movement and clearance of container/cargo. While high-risk cargo may require further action, the flow of low-risk cargo should continue with as little disruption as possible.

Scope

TRP Container/Cargo Management sets out guidelines for establishing trust and transparency through mutually acceptable controls and procedures. These guidelines also include activities such as:

- Allocation of the necessary resources for any additional activities;
- Screening and scanning for in port or outbound container/cargo;
- Updating of risk profiles;
- Transmission of appropriate data elements regarding container/cargo among appropriate stakeholders.

Assumptions

It is assumed that partner economies have existing plans and procedures that provide a foundation for a TRP, and in particular for the management of containers and cargo. This foundation includes Emergency Response Plans (ERP), Continuation of Operation Programmes (COOP), and existing agreements based upon, but not limited to WCO FoS, ISPS, ISO 28001 and other relevant international standards. It is also assumed that screening and scanning teams are in place and personnel are trained on the available technologies, have the requisite personal protection equipment, and that additional resources (i.e., personnel and equipment) are available as needed.

Container/Cargo Management Model Guidelines

- Economies could recognize and provide benefits to the companies or entities that have been certified according to domestic supply chain security programmes. *(WCO FoS Pillar 2, Guidelines to Standard 3)*

- The Event Economy could temporarily increase the rate of random selection at which container(s) is / are scanned to a level that is mutually satisfactory to receiving economies. The timeframe and scanning rate may vary based upon event particulars but, to the extent possible, should be pre-determined. The selection rate should return to as near the baseline rate as quickly as possible.

- Best available technology, procedures, and standards could be employed to identify, scan, decontaminate, and handle containers/cargo to minimize the spread of contamination to non-affected containers/cargo, and so as to facilitate the movement of low-risk cargo.

- Economies should improve the utilization of existing trade data before requesting additional data elements to enhance the new screening methodology. Additional or new data should not be asked for without first assessing the impact of the event on the movement of low-risk cargo.

- Economies could establish mutually acceptable criteria for identifying high-risk cargo[5] and give priority to the movement of low-risk cargo.

- The Event Economy could, at the reasonable request of a partner economy and based upon a comparable risk targeting methodology, perform outbound inspections of high-risk containers and cargo to facilitate the clearance of containers in the partner economy. *(WCO FoS paragraph 1.3)*

- Economies could incorporate event information into the risk management process to identify high-risk containers. *(WCO FoS, Pillar 1, Standard 4 and WCO RKC[6] Standard 6.1)* Separation of high-risk cargo should facilitate movement of low-risk cargo.

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[5] The determination of low risk versus high risk cargo entails a set of activities that are both domestic in nature and not standard across economies. It is understood that this distinction will need to be defined through dialogue between participating economies.
6 WCO Revised Kyoto Convention

- The Event Economy could reassess the clearance status of containers/cargo in port or outbound that may be impacted by or related to the event, to both allow for continued movement of low-risk cargo and identification of high-risk cargo that may require further action.

Table 3: Container/Cargo Management Model Guideline Elements

Container/Cargo Management Communication Details

What is communicated?	Why is it communicated?
Inventory of Affected Container/Cargo	To support proper screening / scanning, processing, and targeting
Event-related risk information: • Type of container • Type of co-loaded cargo • If available, HS-code of co-loaded cargo • Ports of call / Traveling manifest • Full Container Load (FCL) or Less Than Container Load (LCL) • Name of shipper • Name of consignee • Name and ID of vessel	To support joint risk assessment, screening and targeting
Number and ID of containers en-route post-event with profile-match	To enable additional post event screening and scanning by non-event economies at destination
Recommended areas of adjustment for risk profiles	To support joint risk assessment, screening and targeting
Detection technology status information	To support identification of technology needs, expectations of receiving economies, and identification of possible communication options
Information about the cleared containers/cargo • Container number (only containers bound for partner economy's ports) • Vessel / carrier transporting the container to the partner economy • Environmental integrity status of cargo / container	Allows partner economies to make scheduling and routing changes to relieve congestion in the supply chain
Information about changes in screening / scanning measures • Change in detection technology status • Notification of additional trade data requirements (if applicable) • Other information as appropriate	To inform about updated risk assessments, screening and targeting and to identify additional technology needs
Contamination overview: • Level of contamination • Methodology used to determine cargo/container environmental integrity status • Name, location, and function of contaminated areas and extent/severity of that contamination • Equipment and other affected asset information including owner, quantity, etc.	The extent and severity of the contamination provides partner economies situational awareness of the incident and assists in resumption planning, risk assessment, and countermeasures development

What is communicated?	Why is it communicated?
• Additional scanning information such as imaging or photographic evidence	
Decontamination overview/status: • Decontamination and disposal plan • Status of contaminated areas already decontaminated • Estimated time to complete decontamination. • Request for technical assistance	Provides understanding (including timetable) of decontamination process and when affected areas will be fully operational
Containers/Cargo to be processed: • Entry number/ unique consignment reference • Container/equipment number • Importer name/number (for imports) • Exporter name/number (for exports) • Anticipated delays (if applicable) • Instructions on alternative means of transportation (if applicable) • Date and time of release (clearance) of the container/cargo • Importer/exporter name and number • Vessel/carrier transporting cargo/container	Assists partner economies with scheduling and planning cargo movements (Note: Additional cargo/container information may already be required to be exchanged between Economies by pre-event standards. Activation of the TRP does not in any way lessen such requirements.)

Table 4: Container/Cargo Management Communications Details

2.3.2 Security Management

Security Management is largely domestic in nature. However, as the TRP is based on the sharing of information and re-establishing assurance following an event, the coordination of the various components of Security Management is addressed here. To avoid an over-aggressive shutdown of trade, the TRP Security Management identifies steps to coordinate physical (e.g., access control & protection, lighting, guards, etc.), personnel (e.g., identify management, background checks, badging, etc.) and information (e.g., IT control systems, data management systems, etc.) security measures.

Scope

TRP Security Management measures include the following:

- Analysis and identification of security gaps and vulnerabilities;
- Collaboration and implementation of interim and final security measures;
- Access restriction to affected vessels and conveyances;
- Securing of affected cargo and containers

Assumptions

It is assumed that partner economies have existing security management programmes in place and have the capabilities required to perform risk assessments, identify high-risk containers, assess security gaps and vulnerabilities, and develop and implement enhanced security measures.

Security Management Model Guidelines

- Economies could implement suitable countermeasures to increase their respective port(s), facility, and vessel(s) security to address any immediate vulnerabilities identified in the assessment. *(ISPS, Parts A & B)*. Countermeasures should be commensurate with risk, and as much as possible, be limited in scope so as not to overly impact the continued flow of trade. Countermeasures may be implemented through:

    - utilization of various detection technologies, perimeter and access control, changes in patrols and monitoring access to restricted areas
    - increased asset protection of critical supply chain elements
    - validation of personnel credentials for personnel granted access to affected areas
    - encouraging the trade community to reassess, evaluate and validate security agreements and procedures including those of business partners *(ISO/PAS 28001:2006, Sections 4.2 and 4.5)*.

- Until a specific vulnerability is identified and mitigation measures are put in place, Event Economies could increase security patrols, restrict transit at access points and increase the use of detection/surveillance equipment in order to ensure enhanced security measures are commensurate with the nature of the general threat. Once mitigation measures are put in place, increased measures should be decreased, if warranted, such that trade is facilitated. *(ISPS, Defined Security Levels)*

- Additional security measures could be prioritized based on the impact to continued trade flow as well as factors of cost, availability of equipment and personnel, and risk reduction. *(ISO 28001: 2006, Section 5.7)*

- Economies could establish mutual recognition for acceptance of security management documentation (security plans, audits/assessments, certificates, approvals, calibration/maintenance reports pertaining to security related equipment, etc.) generated as a result of an economy's adoption and implementation of the ISPS code. *(ISO 28001:2006; ISPS/SOLAS)*

- Economies should ensure countermeasures are commensurate with identified risk. They should avoid the implementation of unnecessarily restrictive countermeasures or countermeasures that may contribute to unnecessary discontinuance of operations or trade flows. *(ISO 28001:2006, Section 5.7)*

Table 5:   Security Management Model Guideline Elements

Security Management Communication Details

What is communicated?	Why is it communicated?
Security threats, gaps, and vulnerabilities: • Location of identified threats/vulnerabilities pertaining to trade community, ports, vessel, cargo/containers, etc. • Suspected individuals, terrorist organizations, and/or nations • Methods used to carry out attack • Weapon type/quantity • Activities that contributed to incident (e.g., container/cargo mishandling) • Steps that can be taken to better secure the supply chain • Information regarding security procedures or assessments that were determined to be breached and/or compromised before and during the attack.	Allows partner economies to analyze infrastructure and supply chains to immediately address vulnerabilities
Implementation of security measures: • Identified causes of security gaps • Treatable/ transferable countermeasures • Physical security measures implemented in response to incident • Overview of increases in guard/ human/ vessel patrols • Overview of improvements to technology employed for detection, monitoring, and surveillance capabilities	Assists non-event economies with security measure enhancements, operational changes and assessment of technology requirements
Potential sources of risk—cargo/shipment profiles	To support joint risk assessment and targeting
Damage Assessment and operational impact	To enable rapid diversion and rerouting, if necessary
Anticipated duration of disruption and next expected actions	Assists partner economies with scheduling and planning cargo movements

Table 6: Security Management Communications Details

2.3.3 Incident Management

All economies have some measure of incident management capabilities and planning. These processes will vary from economy to economy, but managing an incident with the goal of minimizing the damage to critical infrastructure and processes may be extended to the TRP. Such processes may include activities such as the handling of containers, personnel, and conveyances affected or potentially affected by the event.

Scope

TRP Incident Management identifies the domestic incident management or emergency response activities that each economy undertakes following a terrorist attack. *The purpose of including these activities here is to recognize that trade recovery can be enhanced by providing assurance to partner economies that actions are being taken that complement the ongoing TRP effort.* Guidelines are not provided for these domestic activities. However, specific communication details are noted.

Assumptions

It is assumed that domestic incident management plans are sufficient to identify and collect the information identified in the TRP.

Model Guideline Elements

No model guideline elements are included as incident management is considered a wholly domestic activity.

Incident Management Communication Details

<u>What</u> is communicated?	<u>Why</u> is it communicated?
Characterization of attack and identification of immediate risks to ports, conveyances, cargo/containers, and crew members.	To enable trade community of partner economies to understand immediate supply chain risks to deter additional attacks
Communicate specific details of attack including: • Number and nature of devices used • Type and quantity of CBR weapon • Mode of transportation • Name/location of affected port/terminal(s) • Type of vessel, name, owner, operator • Location of device(s) • Affected commodities • Shipping route • Originating economy/port • Any transshipment ports	To assist targeted screening and scanning in non-event economies; Assists partner economies in analyzing their own supply chain vulnerabilities

Initial damage and contamination assessment:
• Name of affected ports/terminals
• Name of affected private companies
• Initial damage assessment of
    ○ Port infrastructure and equipment
    ○ Road/rail networks
    ○ Conveyances
    ○ Cargo/containers
• Initial contamination assessment of infrastructure, air, and water
	To enable the trade community of partner economies to adjust cargo flows, scheduling, and support based on damage, contamination, throughput capabilities, and other event specifics

Waterway route changes: • Soundings conducted	To facilitate vessels of partner economies to transit waters in event economies safely

What is communicated?	Why is it communicated?
• Navigational obstructions • Navigational aid changes • Availability of tugs / changes in harbor pilot requirements • Estimated duration of waterway/port restrictions and/or closures	and efficiently
Land route changes: • Route restrictions • Route recommendations • Estimated duration of route restrictions • Port access restrictions	To facilitate motor carriers, dray carriers, and rail of partner economies to transit road/rail network in event economies safely and efficiently
Port operating status (event economies): • Current operating capacity • Current delays • Current needs (i.e., manpower, equipment, subject-matter expertise, etc.) • Estimated time to resumption of normal operations	To enable trade community of partner economies to make planning decisions on scheduling and vessel calls at affected ports. It is also necessary for partner economies to understand the needs of affected ports in the event assistance can be provided
Port operating status (non-event economies): • Current delays • Estimated time to resumption of normal operations • Capacity to accept rerouted conveyances, cargo / containers	To enable the trade community of the event economy and partner economies to make planning decisions on scheduling and vessel calls at other ports
Cargo/containers and conveyance at event economies or en-route to or from event economies: • Number/type of shipments en-route • Number/type of shipments laden & at port	To enable the trade community of partner economies to identify the whereabouts of shipments in an attempt to assess internal operations and process backlogs
Investigative findings (where appropriate): • Suspected individuals, terrorist organizations, and/or economies • Methods used to carry out attacks • Weapon type/quantity used	To enable the trade community of partner economies to assist in identifying and sanctioning or prosecuting those responsible for attacks. Also necessary for identifying security gaps and associated vulnerabilities to the international supply chain

Table 7: Incident Management Communications Details

2.4 COMMUNICATIONS

Communication is the main mechanism in demonstrating transparency and building trust among participating economies. Many of the guidelines within the TRP contain communications components where information is shared among the partnering economies. Such communications enable effective coordination in the aftermath of an attack, and facilitate the swift resumption of trade.

2.4.1 Objectives of Communications

The first objective of communication among economies under the TRP is to increase transparency and foster the sharing of information. This will help establish trust among the economies so that economies can coordinate their actions better in the aftermath of an attack.

Second, clear communication is necessary to trigger the TRP. It is proposed that the TRP be triggered only in the following scenario:

- Perceived terrorist attack;
- Perceived port shut down greater than 10 days (30 equivalent-days); and
- Perceived significant disruptive impact on other (non-event) ports within the event economy, as well as on other non-event economies.

Third, communications provide the information necessary for economies to activate their own response and preparation efforts. It also allows the exchange of timely and accurate information, thus enabling effective risk management following an event. This will lead to improved ability to detect high-risk consignments and low-risk cargoes, thereby allowing for low-risk cargoes to be facilitated and to hasten the resumption of trade.

However, economies should not indiscriminately request additional data. The trade community should be consulted on the impact that additional data reporting will have on the trade community and the relative benefits and costs associated with its collection.

2.4.2 Channels of Communications

In order to facilitate the coordination of communication activities, the TRP identifies a TRP Coordination Team as a new entity within each participating economy. Each economy would determine the composition of this team and designate the relevant Points of Contact (POC). The communications pillar focuses on the coordination and communication among TRP Coordination Teams across the participating economies. In some cases, the TRP Coordination Team may overlap with an economy's existing domestic response system. Indeed, in some economies, the TRP Coordination Team function may be assigned to an already-planned-for response and recovery management entity.

As part of the TRP, economies should establish the channels of communication in advance. Such communications channels should take into consideration points of contact, backup contacts, communication methods, communication procedures, resilient and robust infrastructures, lines of communication and a common language, which is supported by all relevant systems and personnel. All communication exchanges must remain secure to ensure sensitive information is not intercepted.

2.4.3 Review Actions and Results

TRP members should establish a committee to review the TRP upon the conclusion of an incident where the TRP was activated. TRP members should document their lessons learned and share them with other economies. Lessons learned may include the following subjects:

- Availability of Information
- Contact with Event economies
- Communication technology
- Accuracy of information
- Communications impediments
- Usefulness of TRP Checklists
- Usefulness of TRP Guidelines
- Interaction with trade community
- Effectiveness of Training and Exercises
- Interaction with non-TRP members

- A common template can be used in the review to allow consistent review of TRP activities. A proposed template is shown in Table 8.

Title:	
Date:	
Incident Name:	
Contact:	
Summary:	
Discussion of Activity or Issue:	
Analysis:	
Recommended Actions:	
Responsible for Action:	
Action Due Date:	
References:	
Identified Success	
Description	*Factors that Promoted this Success*
Areas of potential improvement	
Description	*Improvement Strategy*
Other comments	

Table 8: Lessons Learned Template

CHAPTER 3
TRADE RECOVERY PROGRAMME
IMPLEMENTATION APPROACH

3.1 IMPLEMENTATION APPROACH

This section provides recommendations for the implementation of the TRP by APEC economies. As implementation of the TRP by economies will be on a voluntary basis, the approach taken is therefore based on a pathfinder framework, where ready economies are encouraged to consider embarking on TRP pilot projects bilaterally or multilaterally. This allows progress to be made at a comfortable pace according to differentiated timetables, while keeping the TRP open to broader involvement when other economies are ready to participate. At the same time, economies' use of the TRP model guidelines in framing the TRP pilot projects would ensure that the bilateral/multilateral TRP arrangements that result from these pilot initiatives are broadly harmonized.

The TRP envisages an outcome whereby APEC economies' responses to crisis are informed by coordinated, comprehensive, and sustained communications, so that trust and confidence in the trading system is quickly restored and trade rapidly resumed.

Economies interested in embarking on TRP Pilots could approach like-minded economies using the TRP document as a basis for discussions. The steps under the TRP Pilot may include the following:

- Determine scope and objectives of TRP Pilot
- Design TRP Pilot Projects
- Conduct Pilot Project
- Evaluation and Feedback

3.1.1 Determine scope and objectives of TRP Pilot

This step includes the mutual establishment of a plan for implementing the Pilot that reflects the objectives of the TRP and participating economies' abilities to comply with the spirit of the TRP. This may first involve understanding existing supply chain security programmes, trade facilitation programmes and other security measures of a given economy before a plan can be drawn up.

The outcome of this step is a plan that reflects a set of common objectives, a reasonable timeframe for implementation, the commitment of participating economies during the Pilot, clear articulation of funding needs and sources, and an evaluation process of the Pilot.

3.1.2 Design TRP Pilot Projects

This section lays out elements that economies may wish to consider in designing the TRP Pilot projects.

Gap Analysis

Participating economies are encouraged to undertake a comprehensive assessment of the maturity of their economy's domestic programmes. A suggested basis for assessment is the APEC Framework for the Security and Facilitation of Global Trade, which is based on the WCO SAFE Framework of Standards, as endorsed by APEC Leaders in Busan in 2005. In addition, the disposition of the economies towards a mutual recognition arrangement of these programmes should be assessed. The gap analysis will identify those areas where an economy's existing programmes provide the needed elements for the TRP as well as show areas that need to be addressed to successfully implement the TRP.

Economies may also conduct risk assessments of their security management, container management, and physical infrastructure in order to determine the current state of their overall supply chain security and ability to recover from a terrorist event while minimizing disruption to trade. Economies' security risk assessments could help to identify areas for improvement, adequacy of security controls currently in place within the economies' international supply chain, and the overall state of security.

3.1.3 Conduct Pilot Projects

Conduct of pilot projects may involve the following activities:

Development of Joint Documents

Economies engaged in a pilot project may develop joint documents that outline the arrangements for the pilot project. The documents may take the form of joint contingency plans, bi-lateral agreements, memorandums of understanding, or other structures suitable to the participating economies. These joint documents may address:

- Mutually agreed upon principles
- Specific application of TRP guidelines
- Roles and responsibilities of each economy
- Proposed organization
- Procedures for carrying out actions

Formation of TRP Coordination Team

Each economy may wish to set up a domestic TRP Coordination Team to oversee and facilitate all activities for, as well as collate learning points from the pilot project. Depending on specific domestic arrangements in each economy, the TRP Coordination Team may include elements of an existing domestic response system (for instance, a local or regional representative could be the designated POC according to an economy's domestic response policy, depending on the location of an incident). Some of the responsibilities of the TRP Coordination team would include:

- Serving as the designated Points of Contact (POC) for economies participating in the pilot;
- Coordinating and overseeing implementation of the pilot, including facilitating communication and exchange of information;
- Monitoring and evaluating progress of the pilot;
- Identifying and providing recommendations regarding gaps in implementation or in the TRP guidelines
- Consulting, coordinating, and liaising with relevant members of the Trade Community in their respective economy.
- Sharing of lessons learned

Review of Communications Requirements

Effective communications is crucial for building trust and transparency, which are key principles of the TRP framework. Economies may wish to test communications with their pilot partners via voice, data, and video conferencing. Economies may also wish to consider appointing communication network managers to their pilot projects who would have the ability to monitor the health, status, and maintenance of communication networks.

Conduct of Outreach and Awareness Programs

Outreach and awareness is recognized as a domestic activity and is not a formal part of the TRP Implementation Approach. However, it is also recognized that these activities may serve to reduce any overreactions to a terrorist event and are valuable when preparing for trade recovery. Economies may consider outreach and awareness so as to educate the relevant segments of the community on the TRP while building understanding and confidence.

Conduct of Training/ Exercises

Economies may consider incorporating training and exercises into their TRP pilot projects, tailored for the key personnel who would be involved in the event of TRP activation. Such training/exercises could include:

- Training on inter-economy coordination and information sharing procedures for TRP purposes;

- Tabletop exercises presenting various emergency scenarios to teams of participants with the purpose of allowing the teams to discuss the appropriate TRP response actions;

- Drills involving utilizing actual equipment, facilities, and personnel together to form a full-scale mock emergency.

Such training and exercises may also be executed as part of a domestic exercise programme, furthering the integration of TRP principles into existing planning and response management procedures.

3.1.4 Evaluation and Feedback

At the end of the pilot project, the economies should be able to assess the validity of the assumptions, and the effectiveness of the arrangements established at the outset. An evaluation plan and performance metrics should be developed prior to beginning the project so as to better gauge the success of the pilot. The evaluation plan should provide an assessment methodology as well as show how information will be collected and analyzed. Periodic reviews should take place throughout the project. Once the project is complete, a report based on the evaluation plan should be completed.

3.1.5 Conclusion

The pilot projects should allow economies to assess if the TRP concept being tested is feasible and to identify any necessary adjustments to be made to the TRP. The aim is that the pilot projects would eventually lead to the economies establishing long term bilateral or multilateral arrangements with one another to implement the TRP.

APPENDIXES

List of Participants for APEC Study Group Meeting on Trade Recovery

	Name	Economy	Agency	Designation
1	Chris O'keeffe	Australia	Australian Customs	Director, Supply Chain Security
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3	Jo Corcoran	Australia	Australian Customs	National Manager Industry Engagement & User Services
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6	Md Hakashah Samad	Brunei	Ministry of Foreign Affairs and Trade	Department of Economic Cooperation
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8	Sun Rong Yan	China	General Administration of China Customs	Director, Department of Customs Control and Inspection
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12	Leon Muhamad	Indonesia	Embassy of Indonesia in Singapore	Transportation Attaché
13	Hendra Prasmono	Indonesia	Embassy of Indonesia in Singapore	Head of Customs
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22	Ree Seung Bae	Korea	Ministry of Maritime Affairs and Fisheries	Deputy Director
23	Shin Hee Sun	Korea	Ministry of Foreign Affairs and Trade	Foreign Service Officer
24	Sohn Eul-Ho	Korea	Korea Custom Services	Deputy Director
25	Conrad Petersen	New Zealand	New Zealand Customs Service	Manager, Border and Revenue Policy
26	Richard Bargh	New Zealand	New Zealand Customs Service	Manager, International Relations
27	Chua Chong Kheng	Singapore	Ministry of Transport	Director, International Relations & Security Division
28	Lim Boon Wee (Co-Chairman)	Singapore	Ministry of Transport	Deputy Secretary
29	Mary Seet-Cheng	Singapore	Ministry of Foreign Affairs	Ambassador/Consultant
30	Sam Tee	Singapore	Ministry of Home Affairs	Senior Assistant Director, Security Development Branch
31	Tay Chng Yeow	Singapore	Singapore Customs	Deputy Director-General
32	Teo Eng Cheong (Co-Chairman)	Singapore	Singapore Customs	Director-General
33	Yee Cheok Hong	Singapore	Maritime Port Authority	Director, Policy Division
34	Douglas J. Palmeri	USA	U.S. Customs and Border Protection, DHS	Chief of Asia Branch, Policy & Programs Division, Office of International Affairs and Trade Relations
35	John Daggett	USA	U.S. Customs and Border Protection, DHS	Program Manager
36	Sean K. Moon	USA	DHS, U. S. Coast Guard	Senior Policy Advisor, Office of Cargo, Maritime, and Trade Policy, DHS & Commander, US Coast Guard
37	Le Huan Xue	Viet Nam	General Department of Viet Nam Customs	Deputy Director, International Cooperation Department

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5	Ms Ivy Chong	Singapore	Singapore Customs	Head of Supply Chain Security Branch
6	Ms Lim Sok Peng	Singapore	Singapore Customs	Senior Supply Chain Security Officer

GLOSSARY OF TERMS

Term	Definition
Communication	Addresses all of the relationships, interactions, context, and exchanges that need to exist in order to implement the Trade Recovery Programme through the development of model guidelines.
Emergency Response Plan	Provide a comprehensive approach to managing and responding to manmade or natural events.
Event Economy	An economy that is directly targeted by a terrorist attack.
Non-event Economy	An economy that is not directly targeted by a terrorist attack but is still affected by a direct attack on another economy.
Trade Community	Non-governmental entities involved in trade and having significant interest in the condition of supply chain operations.
Trade Contingency Plan	Addresses the recovery of critical transport and trade functions in the event that an incident or emergency disrupts normal operations.
TRP Coordination Team	Coordinates, oversees, and facilitates all communication and implementation activities.
TRP Working Groups	Teams of subject matter experts organized to address issues related to IT/communications, trade, port operations, security, etc.
Video and Voice Over Internet Protocol	A set of functions or faculties that enable the transmission of voice information over the internet.