

TECHNICAL GAP CHECKLIST FOR CROSS-BORDER PAPERLESS TRADE¹ **(VERSION 0.7)**

It is important to understand technical issues in implementing paperless trade systems, in particular by Small and Medium-sized Enterprises (SMEs) and Land-Locked Developing Countries (LLDCs) that has limited experiences in introducing paperless trade.

The objective of the (draft) checklist is for self-assessment of technical gaps in implementing (cross-border) paperless trade systems, which can be valuably used by stakeholders from SMEs and LLDCs in planning the implementation of paperless trade systems. The checklist takes into consideration national issues, pre-requisites such as implementation of electronic and paperless transactions at national level, and the importance of single window for cross-border paperless trade data exchange.

The checklist is in the form of questionnaire with list of questions related to technical issues in implementing paperless trade systems and cross-border data exchange. It is prerequisite to assess the status of paperless trade systems implementation at national level first before looking into readiness for cross-border data exchange. In this regard, the questionnaire is structured into two sections:

(i) Section A - Paperless Trade System at the National Level

This section focuses on technical issues related to implementation of electronic trade systems in paperless environment at the national level. Technical issues are grouped into the following categories

1. Institutional and governance bodies for electronic data exchange in paperless environment
2. Level of automation
3. ICT infrastructure (Connectivity, sustainability and recovery)
4. Security
5. Business process re-engineering
6. Data harmonization and standardization

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7. Capacity building
8. Others

(ii) Section B – National Status Towards Cross-border Data Exchange

This section is aimed at assessing the status of a country or an organization to embark on cross-border paperless trade data exchange projects.

The questions are in one way or another related to the various issues and challenges encountered in the implementation of paperless trade systems and cross-border data exchange. The answers to these questions will help analyse the current status and assess the level of readiness to implement paperless trade systems and cross-border data exchange.

For better understanding of the questionnaire and its rationale, annotation is provided in Annex A so that more precise answers could be provided.

It should be noted that the principle requirements for paperless trade and cross-border data exchange are not solely technical in their nature but to a certain extent legal too. In fact, some of the technical issues are results of legal requirements. For example, if domestic legislation mandates the adoption of a specific security technology, there could be a big challenge in finding a technical solution to engage cross-border data exchange with dialog partners who are not in favor of the same technology. In this respect, a few of the questions in the checklist are legally related but are relevant in considering technical issues and challenges.

Checklist
in
Enabling Cross-Border Paperless Trade Data Exchange

Country:

Name of Organization/Agency:

Name of Ministry:

Date:

*(Note: Please refer to annotation in **Annex A** for clarification on each item listed in this Checklist.)*

Section A: Paperless Trade System at the National Level

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
1.	Institutional and governance bodies for electronic data exchange in paperless environment:			
1.1	Is there strong political commitment in your country to implement paperless trade systems to expedite international trade supply chain?			
1.2	Does the paperless trade initiative encompass all the community partners and is it driven by the government at the top level?			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
1.3	<p>Is there an inter-agencies governance structure established to oversee paperless trade systems facilitated by the government?</p> <p>If yes, please provide a diagrammatic representation of the structure and indicate the Lead Agency?</p>			
2.	Level of Automation			
2.1	<p>(a) Has your country implemented any of the following systems?</p> <p>i. eCustoms,</p> <ul style="list-style-type: none"> • Does it have the capability to receive, process and issue document electronically? • Is it integrated with ePayment? • Does it have the capability to authenticate users electronically? • Does it ensure data/document security? • What is the percentage of trade covered under this system? • Are community partners connected to it electronically? <p>ii. ePort (including air, sea and land mode. Please specify)</p> <ul style="list-style-type: none"> • Does it have the capability to receive, process 			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
	<p>and issue document electronically?</p> <ul style="list-style-type: none"> • Is it integrated with ePayment? • Does it have the capability to authenticate users electronically? • Does it ensure data/document security? • What is the percentage of trade covered under these systems? • Are community partners connected to it electronically? <p>iii. eLicense, ePermit, eCertificate etc</p> <ul style="list-style-type: none"> • Does it have the capability to receive, process and issue document electronically? • Is it integrated with ePayment? • Does it have the capability to authenticate users electronically? • Does it ensure data/document security? • What is the percentage of trade covered under these systems? <p>iv. Systems of other stakeholders of cross-border trade:</p> <ul style="list-style-type: none"> • Does it have the capability to receive, process and issue document electronically? • Is it integrated with ePayment? • Does it have the capability to authenticate users electronically? 			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
	<ul style="list-style-type: none"> • Does it ensure data/document security? • What is the percentage of trade covered under these systems? <p>(b) What is your country's targeted timeline to cover all trade transactions through these systems towards paperless environment?</p>			
2.2	<p>Has a Single Window System been implemented in your country to expedite cargo movement/clearance and to facilitate international trade supply chain?</p> <p>If yes,</p> <ul style="list-style-type: none"> (i) how does it receive data electronically i.e what kind of user interface and communication channel (internet based network or dedicated/secured private network) is used? (ii) does it support paperless environment? (iii) How many agencies are connected to the single window? Please list them. <p>If no, does your country have a future plan and when is the targeted timeline to implement electronic transactions towards paperless environment?</p>			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
3.	ICT Infrastructure (Connectivity, sustainability and recovery)			
3.1	<p>Is Internet service available at all ports/airports/cargo clearing house in your country?</p> <p>If not, what is your country's future plan and targeted timeline to connect the stakeholders of the logistic and supply chain including controlling agencies?</p>			
3.2	<p>Are the <u>systems mentioned in 2.1</u> connected via a common network?</p> <p>If yes, does it have the following features?</p> <ul style="list-style-type: none"> (i) an integrated secured network; (ii) able to provide a high availability rate of minimum 99.9% for trade data exchange in paperless environment ; (iii) able to support various communication protocols; (iv) able to provide secure information exchanges that ensure optimal confidentiality and data integrity (v) designed to take into account future requirements such as device and technology upgrades <p>If any of the above is lacking, what is your country's future plan to upgrade it and what is the targeted timeline?</p>			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
3.3	<p>If a Single Window System is implemented, does it support heterogeneous systems (i.e. able to integrate/interface/interoperate with systems on different platform)?</p> <p>If it does support heterogeneous systems, what is the method of integration/interfacing?</p>			
3.4	<p>Does your country have a strategic plan to address ICT infrastructure issues?</p> <p>If not, what is your country's future plan and targeted timeline to establish the strategic plan?</p>			
3.5	<p>Is there any policy for the establishment of a DRC at</p> <ul style="list-style-type: none"> - agency level? - national level? <p>Please state the DRC implementation at</p> <ul style="list-style-type: none"> - agency level (specify the %) - national level. <p>If not, what is your country's future plan and targeted timeline to set up a DRC?</p>			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
3.6	<p>Does your country have a business continuity plan?</p> <p>If yes, is it regularly tested?</p> <p>If not, what is your country's future plan and targeted timeline to develop a business continuity plan?</p>			
4.	Security			
4.1	<p>Is there any IT security policy for your country?</p> <p>If yes, please specify.</p>			
4.2	<p>What kind of security measures undertaken to protect system(s) mentioned in 2.1 (if any of them is implemented) from unauthorized access?</p>			
4.3	<p>What kind of authentication mechanism used to ensure security of information transmitted electronically?</p>			
4.4	<p>What kind of communication protocol is used for electronic data exchange currently?</p>			
4.5	<p>What is your country's future plan to enhance the security level mentioned in 4.1 and 4.2 and what is the targeted timeline?</p>			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
5.	Business Process Re-engineering			
5.1	<p>Have the stakeholders in your country conducted re-engineering and streamlining of business processes to support paperless trade/national single window</p> <p>(i) at agency level? (Please list them)</p> <p>(ii) at national level?</p>			
5.2	<p>Has your country implemented any paperless transactions?</p> <p>If yes, what kind of transactions are implemented and type of electronic documents are exchanged?</p> <p>If not, what is your country's future plan and targeted timeline to do away with paper-based documents?</p>			
6.	Data Harmonization and Standardization			
6.1	<p>Has data harmonization and standardization been conducted</p> <p>(i) at agency level?</p> <p>(ii) at national level?</p> <p>If yes, is it based on international standards/guidelines such as UN/EDIFACT, UN/LOCODE, UN/CEFACT Single Window Recommendation etc?</p>			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
7.	Capacity Building			
7.1	Has your country conducted any awareness program and/or workshop to ensure the stakeholders (government agencies and traders) having a common understanding on 'paperless trade' and to have better insight in the requirements of 'paperless trade' as well as their respective role to help realize cross-border paperless trade data exchange?			
7.2	Do the stakeholders of cross-border trade in your country fully understand the single window approach?			
7.3	Has your country conducted any awareness program or workshop on single window?			
7.4	What is your country's future plan and timeline to enhance capacity building for cross-border paperless trade data exchange?			
8.	Others			
8.1	(i) What is the level of computer literacy in the trading community in your country as a whole to support electronic transactions? (>75%=High, 50%=Medium, 25%=Low) (ii) Are they ready with an open mind to accept changes			

No.	Questions	(Y=Yes, N=No H=High, M=Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
	arising from re-engineered business processes in implementing paperless trade systems?			
8.2	Does your country encounter budget constraint in implementing paperless trade system? If yes, what is your country's future plan to overcome this financial constraint and what is the targeted timeline?			

Section B: National Status Towards Cross-Border Data Exchange

No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
1.	What is the percentage of systems mentioned in Section A 2.1 (if any of them is implemented) support cross-border data exchange?			
2.	<p>If a single window mentioned in Section A 2.2 is implemented, does it support cross-border data exchange?</p> <p>If ‘Yes’, does it function as the National Single Window which acts as the national single point of connectivity for any cross-border data exchange with other dialog partners?</p>			
3.	<p>Does your country have a national legislation supporting implementation of security mechanism (such as authentication, authorization and auditing) to ensure confidentiality and integrity of cross-border data exchange?</p> <p>If yes, is it technologically neutral?</p> <p>If it is based on specific technology, please specify.</p> <p>If no security mechanism is in place, what is your country’s future plan and targeted timeline to address this issue?</p>			

No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
4.	<p>If your country has implemented paperless transactions at the national level as mentioned in Section A 5.2, has re-engineering and streamlining of business processes been conducted to support cross-border data exchange?</p> <p>If not, what is your country's future plan and targeted timeline to develop a regional business process for cross-border data exchange?</p>			
5.	<p>Has data harmonization and standardization been conducted based on international standards/guidelines such as UN/EDIFACT, UN/LOCODE, UN/CEFACT Single Window Recommendation etc., to support cross-border paperless trade data exchange?</p> <p>If not, what is your country's future plan to minimize changes in your system process and database structure for cross-border data exchange electronically?</p>			
6	International Transit			
6.1	<p>Is paperless Customs declaration implemented in your country for</p> <p>(i) national transit procedures (inbound transit, outbound transit, inland transit)?</p> <p>(ii) international transit?</p>			

No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
	<p>If yes, is the Customs regime in your country able to support implementation of a single Customs Transit Declaration and single guarantee valid for the international transit route taking into consideration the following?</p> <p>(i) to agree on a guarantee registered at the country of departure, covering the highest duty amount calculated based on duty rate of each country in the transit route, to be valid and accepted throughout the transit route; and</p> <p>(ii) to agree on a regional/sub-regional format and content of the single guarantee;</p> <p>If not, what is your country's future plan and targeted timeline to address this issue?</p>			
6.2	<p>Has your country implemented a one stop inspection by all controlling agencies at the borders at the time of exit/export?</p> <p>If yes, is the inspection results shared with the importing country?</p> <p>If not, is there any intention to implement a single stop inspection and what is the timeline?</p>			

No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
7.	Capacity Building			
7.1	<p>Does your country have an awareness program for stakeholders to have a better understanding on:</p> <p>(i) how cross-border data exchange could be implemented;</p> <p>(ii) potential business transactions and documents for cross-border data exchange;</p> <p>(iii) various issues that need to be addressed?</p> <p>If not, what is your future plan and targeted timeline to conduct the awareness program?</p>			
7.2	<p>Does your country have the capacity to carry out:</p> <ul style="list-style-type: none"> - Business process analysis? - Data harmonization and simplification? - System development? - Project management? 			
8.	Others			
8.1	<p>(i) Is the Authorized Economic Operator scheme implemented in your country?</p> <p>If yes, how extensive is it implemented in terms of</p>			

No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
	<p>percentage of economic operators registered for the scheme?</p> <p>(ii) In general, what is the level of compliance of traders in your country (high, medium or low)?</p> <p>(iii) Is your country ready to sign any Mutual Recognition Agreement for AEO with dialog partners?</p>			
8.2	<p>Are the stakeholders and trade community ready with an open mind to accept changes arising from the re-engineered processes towards cross-border data exchange?</p> <ul style="list-style-type: none"> - Regulatory agencies - Agents/Customs brokers - Traders - Port Community - Financial institutions - Others (Please specify) 			
8.3	<p>Does your country have any financial constraint in implementing cross-border paperless trade data exchange?</p> <p>If yes, what is your country's future plan to overcome this financial constraint and what is the targeted timeline?</p>			

No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
8.4	<p>Has your country conducted legal gap analysis for cross-border data exchange? ²</p> <p>If not, what is your future plan and targeted timeline to conduct the legal gap analysis?</p>			
8.5	<p>Does your country have necessary legislation to address data privacy?</p>			
8.6	<p>Does your national legislation forbid sharing of data/information across border on the pretext of data confidentiality and integrity?</p> <p>If yes, what is your country's future plan and timeline to address this issue?</p>			
8.7	<p>Is your country considering cross-border data exchange for any of the following documents and related processes? (Y=Yes, N=No) <i>(Please select top 5 prioritized documents)</i></p> <p>(i) Sea Way Bill</p> <p>(ii) (Advance) Manifest</p>			

² There is a Legal Gap Checklist which is relevant for this legal gap analysis.

No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
	<ul style="list-style-type: none"> (iii) Customs Transit Declaration (iv) Transit Bond (v) Phyto-Sanitary Certificate (vi) Sanitary Certificate (vii) Fumigation Certificate (viii) CITES Certificate (ix) Certificate of Origin (Preferential CO) (x) Certification of Origin (non-preferential) (xi) Pharmaceutical Certificate (xii) National Standard and Quality Certificates (xiii) ISO and other international standards and quality certificates (xiv) Certificate for medical devices (xv) Certification of Electrical and Electronic Components, Equipment and Product (xvi) Dangerous Goods List (xvii) Material Safety Data Sheet (MSDS) (xviii) Letter of Credit (xix) Bill of Lading 			

No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan																	
	(xx) Invoice (xxi) Packing List (xxii) Import Permit (xxiii) Others (Please specify).....																				
8.8	<p>For each of the five (5) prioritized documents identified in 10.6, please provide further information on the following:</p> <p>(i) The implementing agency/party:</p> <table border="0"> <thead> <tr> <th>Documents</th> <th>Implementing agency/party</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> </tbody> </table> <p>(ii) How many % of the document and related processes is paperless?</p> <table border="0"> <thead> <tr> <th>Documents (%)</th> </tr> </thead> <tbody> <tr><td>.....</td></tr> <tr><td>.....</td></tr> <tr><td>.....</td></tr> <tr><td>.....</td></tr> </tbody> </table>	Documents	Implementing agency/party	Documents (%)			
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No.	Factors	(Y=Yes, N=No H=High,M= Medium, L=Low)	Elaboration on status/issues/ Future plan	Timeline (if relevant) for future plan
			

Annex A

Annotation to the Checklist in Enabling Cross-Border Paperless Trade Data Exchange

The annotation given below will help clarify the rationale of the questions so that more precise answer could be provided.

Section A will help examine the development and implementation status of a computerized trade system at national level to support cross-border data exchange.

Section B will help assess the status of readiness for cross-border data exchange.

Section A: Paperless Trade System at the national level

No.	Questions	Annotation
1.	Institutional and governance bodies for electronic data exchange in paperless environment:	One of the critical success factors for paperless trade system implementation is strong commitment from the Head of Government without which many projects of this magnitude tend to stall.
1.1	Is there strong political commitment in your country to implement paperless trade systems to expedite international trade supply chain?	When top management is committed to spearhead a project, issues of financial support and other resources could be addressed more readily.
1.2	Does the paperless trade initiative encompass all the community partners and is it driven by the government at the top level?	Coordination among participating parties (among Government agencies, between government and private sectors) is not an easy task but could be carried out more efficiently and effectively with the establishment of an institutional body equipped with a strong governance structure.
1.3	Is there an inter-agencies governance structure established to oversee paperless trade systems facilitated by the government? If yes, please provide a diagrammatic representation of the structure and indicate the Lead Agency?	The institutional set-up will provide a venue for relevant officials to come together to discuss on functionalities and other technical as well as legal matters. The governance structure which depicts the role and responsibilities of each unit/group as well as reporting mechanism will expedite the implementation of the paperless trade systems.

No.	Questions	Annotation
2.	Level of Automation	
2.1	<p>(a) Has your country implemented any of the following systems?</p> <p>i. eCustoms,</p> <ul style="list-style-type: none"> • Does it have the capability to receive, process and issue document electronically? • Is it integrated with ePayment? • Does it have the capability to authenticate users electronically? • Does it ensure data/document security? • What is the percentage of trade covered under this system? • Are community partners connected to it electronically? <p>ii. ePort (including air, sea and land mode. Please specify)</p> <ul style="list-style-type: none"> • Does it have the capability to receive, process and issue document electronically? • Is it integrated with ePayment? • Does it have the capability to authenticate users electronically? • Does it ensure data/document security? • What is the percentage of trade covered under these systems? • Are community partners connected to it electronically? 	<p>It is not feasible for an organization/agency without the capability of processing electronic document/information/data to consider implementing paperless trade system let alone cross-border data exchange subsequently.</p>

No.	Questions	Annotation
	<p>iii. eLicense, ePermit, eCertificate etc</p> <ul style="list-style-type: none"> • Does it have the capability to receive, process and issue document electronically? • Is it integrated with ePayment? • Does it have the capability to authenticate users electronically? • Does it ensure data/document security? • What is the percentage of trade covered under these systems? <p>iv. Systems of other stakeholders of cross-border trade:</p> <ul style="list-style-type: none"> • Does it have the capability to receive, process and issue document electronically? • Is it integrated with ePayment? • Does it have the capability to authenticate users electronically? • Does it ensure data/document security? • What is the percentage of trade covered under these systems? <p>(b) What is your country's targeted timeline to cover all trade transactions through these systems towards paperless environment?</p>	
2.2	<p>Has a Single Window System been implemented in your country to expedite cargo movement/clearance and to facilitate international trade supply chain? If yes,</p>	<p>A single window system which provides a single sign-on function and single point of data submission will make the trade facilitation system more user-friendly. Having a single window system implemented at the national level for</p>

No.	Questions	Annotation
	<p>(i) how does it receive data electronically i.e what kind of user interface and communication channel (internet based network or dedicated/secured private network) is used?</p> <p>(ii) does it support paperless environment?</p> <p>(iii) How many agencies are connected to the single window? Please list them.</p> <p>If no, does your country have a future plan and when is the targeted timeline to implement electronic transactions towards paperless environment?</p>	<p>cargo movement and clearance will help overcome some challenges in implementing cross-border data exchange for trade facilitation.</p> <p>The kind of user interface and communication channel used in data submission will to a certain extent affect the efficiency and security of an IT system.</p> <p>Ultimately, a trade facilitation system needs to support paperless environment to bring forth full benefit to the trading community.</p> <p>To implement a trade facilitation system, systems of all stakeholders should be inter-connected for more efficient data exchange and processing.</p>
3.	ICT Infrastructure (Connectivity, sustainability and recovery)	A good ICT infrastructure is one of the essential elements for an efficient paperless trade system.
3.1	<p>Is Internet service available at all ports/airports/cargo clearing house in your country?</p> <p>If not, what is your country's future plan and targeted timeline to connect the stakeholders of the logistic and supply chain including controlling agencies?</p>	<p>The primary function of the network is to serve as a secure channel for information exchange between the participating parties. Thus, it has to deliver an acceptable level of service.</p> <p>Unavailability of internet service could be one of the obstacles in full implementation of a trade facilitation system when the business process is incomplete due to missing parties in the network connectivity.</p>
3.2	<p>Are the <u>systems mentioned in 2.1</u> connected via a common network?</p> <p>If yes, does it have the following features?</p> <p>(i) an integrated secured network;</p> <p>(ii) able to provide a high availability rate of minimum</p>	<p>There are various options of network such as Multi-Protocol Label Switching - Internet Protocol Virtual Private Network (MPLS-IPVPN), HTTPS (SSL over public internet).</p> <p>Regardless of choice of options, the network should allow connectivity and interoperability between heterogeneous platforms and support</p>

No.	Questions	Annotation
	<p>99.9% for trade data exchange in paperless environment ;</p> <p>(iii) able to support various communication protocols;</p> <p>(iv) able to provide secure information exchanges that ensure optimal confidentiality and data integrity</p> <p>(v) designed to take into account future requirements such as device and technology upgrades</p> <p>If any of the above is lacking, what is your country's future plan to upgrade it and what is the targeted timeline?</p>	<p>various protocols and exchange paradigms within a secure operating environment.</p> <p>The network and system must have the capacity to cope with the expected volume of electronic transactions before paper documents are discontinued.</p>
3.3	<p>If a Single Window System is implemented, does it support heterogeneous systems (i.e. able to integrate/interface/interoperate with systems on different platform)?</p> <p>If it does support heterogeneous systems, what is the method of integration/interfacing?</p>	<p>It is not uncommon that different stakeholders have different level of computerization and system on different platforms. To ease integration/interfacing/interoperability between these systems, the single window system which connects them needs to support heterogeneous systems.</p>
3.4	<p>Does your country have a strategic plan to address ICT infrastructure issues?</p> <p>If not, what is your country's future plan and targeted timeline to establish the strategic plan?</p>	<p>Putting in place a strategic plan to address ICT infrastructure issues and a disaster recovery centre should be part of a business continuity plan.</p>

No.	Questions	Annotation
3.5	<p>Is there any policy for the establishment of a DRC at</p> <ul style="list-style-type: none"> - agency level? - national level? <p>Please state the DRC implementation at</p> <ul style="list-style-type: none"> - agency level (specify the %) - national level. <p>If not, what is your country's future plan and targeted timeline to set up a DRC?</p>	
3.6	<p>Does your country have a business continuity plan?</p> <p>If yes, is it regularly tested?</p> <p>If not, what is your country's future plan and targeted timeline to develop a business continuity plan?</p>	Business continuity plan is essential to ensure the effects of operating disruptions are properly mitigated.
4.	Security	
4.1	<p>Is there any IT security policy for your country?</p> <p>If yes, please specify.</p>	
4.2	<p>What kind of security measures undertaken to protect system(s) mentioned in 2.1 (if any of them is implemented) from unauthorized access?</p>	The confidence of users to replace paper-based document with electronic information or data is to a great extent dependent on how the IT system manage the electronic data in a secured manner.

No.	Questions	Annotation
4.3	What kind of authentication mechanism used to ensure security of information transmitted electronically?	
4.4	What kind of communication protocol is used for electronic data exchange currently?	
4.5	What is your country's future plan to enhance the security level mentioned in 4.1 and 4.2 and what is the targeted timeline?	
5.	Business Process Re-engineering	
5.1	<p>Have the stakeholders in your country conducted re-engineering and streamlining of business processes to support paperless trade/national single window</p> <p>(i) at agency level? (Please list them)</p> <p>(ii) at national level?</p>	<p>Failure to review and re-engineer a manual procedure/process in the development of an electronic system will often lead to inefficiency of the system. It will further jeopardize integration/interfacing with other systems if business processes across the board are not streamlined to ensure seamless flow of information.</p>
5.2	<p>Has your country implemented any paperless transactions?</p> <p>If yes, what kind of transactions are implemented and type of electronic documents are exchanged?</p> <p>If not, what is your country's future plan and targeted timeline to do away with paper-based documents?</p>	<p>Implementation of an electronic system often begins with parallel processing of paper document but the ultimate goal is to discontinue the usage of paper document to the most possible.</p> <p>Process re-engineering needs to be conducted and paperless transactions need to be implemented at national level in preparation for cross-border data exchange.</p>

No.	Questions	Annotation
6.	Data Harmonization and Standardization	
6.1	<p>Has data harmonization and standardization been conducted</p> <ul style="list-style-type: none"> (iii) at agency level? (iv) at national level? <p>If yes, is it based on international standards/guidelines such as UN/EDIFACT, UN/LOCODE, UN/CEFACT Single Window Recommendation etc?</p>	<p>Data compatibility is one of the main issues that need to be addressed in various connectivity projects in and around the region.</p> <p>Thus, if data harmonization and standardization can be carried out as early as possible, seamless data exchange will be achieved without compatibility issues especially if it is based on international standards.</p>
7.	Capacity Building	
7.1	<p>Has your country conducted any awareness program and/or workshop to ensure the stakeholders (government agencies and traders) having a common understanding on ‘paperless trade’ and to have better insight in the requirements of ‘paperless trade’ as well as their respective role to help realize cross-border paperless trade data exchange?</p>	<p>Capacity building is an ongoing activity in most projects but is important particularly at the onset of a project to ensure the stakeholders have a common understanding on the project and their respective role and responsibilities to make it a success.</p>
7.2	<p>Do the stakeholders of cross-border trade in your country fully understand the single window approach?</p>	
7.3	<p>Has your country conducted any awareness program or workshop on single window?</p>	
7.4	<p>What is your country’s future plan and timeline to enhance capacity building for cross-border paperless trade data exchange?</p>	

No.	Questions	Annotation
8.	Others	
8.1	<p>(i) What is the level of computer literacy in the trading community in your country as a whole to support electronic transactions? (>75%=High, 50%=Medium, 25%=Low)</p> <p>(ii) Are they ready with an open mind to accept changes arising from re-engineered business processes in implementing paperless trade systems?</p>	<p>One of the challenges encountered in the implementation of paperless trade system is resistance to changes from the trading community. Once identified such an issue, awareness program needs to be conducted to educate them to change their mindset.</p>
8.2	<p>Does your country encounter budget constraint in implementing paperless trade system?</p> <p>If yes, what is your country's future plan to overcome this financial constraint and what is the targeted timeline?</p>	<p>Implementation of a paperless trade system may require substantial fund and planning for budget should be done as early as possible.</p>

Section B: National Status Towards Cross-Border Data Exchange

No.	Questions	Annotation
1.	What is the percentage of systems mentioned in Section A 2.1 (if any of them is implemented) support cross-border data exchange?	Ideally, all stakeholders of cross-border trade should be on board the cross-border data exchange project to bring forth full benefits. In this respect, it is important that their IT systems support cross-border data exchange.
2.	<p>If a single window mentioned in Section A 2.2 is implemented, does it support cross-border data exchange?</p> <p>If 'Yes', does it function as the National Single Window which acts as the national single point of connectivity for any cross-border data exchange with other dialog partners?</p>	A single window system is meant to connect systems of the stakeholders via a single point of connectivity providing more efficient integration/interfacing. Likewise, a National Single Window which acts as the national single point of connectivity will tend to ease integration/interfacing for cross-border data exchange with dialog partners.
3.	<p>Does your country have a national legislation supporting implementation of security mechanism (such as authentication, authorization and auditing) to ensure confidentiality and integrity of cross-border data exchange?</p> <p>If yes, is it technologically neutral?</p> <p>If it is based on specific technology, please specify.</p> <p>If no security mechanism is in place, what is your country's future plan and targeted timeline to address this issue?</p>	<p>One of the main concerns of stakeholders in cross-border data exchange is the risk that confidentiality could be breached in the exchange of data. Various technology and security mechanism are available in the market. The choice is dependent on the requirements of the participants of cross-border data exchange.</p> <p>Most countries in the region adopt technology-neutral approach in their domestic legislation or trade agreements with dialog partners. Thus, one must be prepared to have a work around solution if specific security technology is not acceptable by one's dialog partners for the cross-border data exchange.</p>

No.	Questions	Annotation
4.	<p>If your country has implemented paperless transactions at the national level as mentioned in Section A 5.2, has re-engineering and streamlining of business processes been conducted to support cross-border data exchange?</p> <p>If not, what is your country's future plan and targeted timeline to develop a regional business process for cross-border data exchange?</p>	<p>When business process re-engineering is done on domestic procedures/processes for paperless transaction at the national level, it has to take into consideration requirements for cross-border data exchange whereby paper document will not be exchanged across border.</p>
5.	<p>Has data harmonization and standardization been conducted based on international standards/guidelines such as UN/EDIFACT, UN/LOCODE, UN/CEFACT Single Window Recommendation etc., to support cross-border paperless trade data exchange?</p> <p>If not, what is your country's future plan to minimize changes in your system process and database structure for cross-border data exchange electronically?</p>	<p>If data harmonization and standardization is done based on international standards which are adopted by most organizations or countries in the region, it will minimize changes in the national system process and database structure when implementing cross-border data exchange electronically.</p>
6	<p>International Transit</p>	
6.1	<p>Is paperless Customs declaration implemented in your country for</p> <p>(i) national transit procedures (inbound transit, outbound transit, inland transit)?</p> <p>(ii) international transit?</p> <p>If yes, is the Customs regime in your country able to support implementation of a single Customs Transit Declaration and</p>	<p>Among the issues faced by transit traders under the current international transit procedure in many countries in the region are:</p> <p>(i) repetitive submission of a customs transit declaration at entry to every country of transit; and</p> <p>(ii) a security document needs to be registered at every country of transit.</p> <p>To address the above issues, the following could be considered:</p> <p>(a) a single Customs Transit Declaration to be valid for the whole transit</p>

No.	Questions	Annotation
	<p>single guarantee valid for the international transit route taking into consideration the following?</p> <p>(i) to agree on a guarantee registered at the country of departure, covering the highest duty amount calculated based on duty rate of each country in the transit route, to be valid and accepted throughout the transit route; and</p> <p>(ii) to agree on a regional/sub-regional format and content of the single guarantee;</p> <p>If not, what is your country's future plan and targeted timeline to address this issue?</p>	<p>route:</p> <p>Data/Information of the Customs Transit Declaration submitted and approved at the country of departure to be shared across border with the countries of transit and country of destination.</p> <p>(b) a single guarantee to be valid for the whole transit route:</p> <p>Relevant data/information of the guarantee registered at the country of departure to be shared across border with countries of transit and country of destination.</p>
6.2	<p>Has your country implemented a one stop inspection by all controlling agencies at the borders at the time of exit/export?</p> <p>If yes, is the inspection results shared with the importing country?</p> <p>If not, is there any intention to implement a single stop inspection and what is the timeline?</p>	<p>If single stop inspection is done by all controlling agencies at the exporting country and data of the inspection results is shared with the importing country, it will definitely expedite cargo clearance.</p>
7.	<p>Capacity Building</p>	
7.1	<p>Does your country have an awareness program for stakeholders to have a better understanding on:</p> <p>(i) how cross-border data exchange could be implemented;</p> <p>(ii) potential business transactions and documents for cross-border data exchange;</p> <p>(iii) various issues that need to addressed?</p>	<p>Awareness program is important for stakeholders to understand how cross-border data exchange could be carried out so as to reduce their anxiety and that they will be prepared to address any issues that may arise.</p>

No.	Questions	Annotation
	If not, what is your future plan and targeted timeline to conduct the awareness program?	
7.2	<p>Does your country have the capacity to carry out:</p> <ul style="list-style-type: none"> - Business process analysis? - Data harmonization and simplification? - System development? - Project management? 	If a country lacks the expertise to carry out business process analysis, data harmonization & simplification, system development, project management etc, it may look for technical assistance from external party.
8.	Others	
8.1	<p>(i) Is the Authorized Economic Operator scheme implemented in your country?</p> <p>If yes, how extensive is it implemented in terms of percentage of economic operators registered for the scheme?</p> <p>(ii) In general, what is the level of compliance of traders in your country (high, medium or low)?</p> <p>(iii) Is your country ready to sign any Mutual Recognition Agreement for AEO with dialog partners?</p>	Some countries which are ready for cross-border data exchange may not be willing to participate in a pilot project. One of the reasons is the lack of trust on economic operators of their dialog partners. If your economic operators are able to comply with AEO (Authorized Economic Operator) scheme and mutually recognized by your dialog partners, it will expedite cross-border data exchange.
8.2	<p>Are the stakeholders and trade community ready with an open mind to accept changes arising from the re-engineered processes towards cross-border data exchange?</p> <ul style="list-style-type: none"> - Regulatory agencies - Agents/Customs brokers - Traders 	In the preparatory stage, it is useful to assess the readiness of stakeholders in accepting changes arising from cross-border data exchange, and availability of fund for any potential cross-border paperless trade project.

No.	Questions	Annotation
	<ul style="list-style-type: none"> - Port Community - Financial institutions - Others (Please specify) 	
8.3	<p>Does your country have any financial constraint in implementing cross-border paperless trade data exchange?</p> <p>If yes, what is your country's future plan to overcome this financial constraint and what is the targeted timeline?</p>	
8.4	<p>Has your country conducted legal gap analysis for cross-border data exchange?³</p> <p>If not, what is your future plan and targeted timeline to conduct the legal gap analysis?</p>	<p>Requirements for paperless trade and cross-border data exchange are not solely technical-based but to a certain extent legal-based. It is critical to carry out a legal gap analysis to assess what needs to be done to ensure the current legal instruments could support cross-border data exchange.</p>
8.5	<p>Does your country have necessary legislation to address data privacy?</p>	
8.6	<p>Does your national legislation forbid sharing of data/information across border on the pretext of data confidentiality and integrity?</p> <p>If yes, what is your country's future plan and timeline to address this issue?</p>	<p>Many countries in the region are restricted by their domestic legislation to share data across border under their 'Data Confidentiality Act'. This restriction will remain an obstacle to cross-border data exchange unless there is a work around solution under a specific agreement.</p>
8.7	<p>Is your country considering cross-border data exchange for any of the following documents and related processes? (Y=Yes,</p>	<p>Sharing of information on countries' preference on the prioritized documents for cross-border data exchange can help identify potential</p>

³ There is a Legal Gap Checklist which is relevant for this legal gap analysis.

No.	Questions	Annotation
	<p>N=No) <i>(Please select top 5 prioritized documents)</i></p> <ul style="list-style-type: none"> (i) Sea Way Bill (ii) (Advance) Manifest (iii) Customs Transit Declaration (iv) Transit Bond (v) Phyto-Sanitary Certificate (vi) Sanitary Certificate (vii) Fumigation Certificate (viii) CITES Certificate (ix) Certificate of Origin (Preferential CO) (x) Certification of Origin (non-preferential) (xi) Pharmaceutical Certificate (xii) National Standard and Quality Certificates (xiii) ISO and other international standards and quality certificates (xiv) Certificate for medical devices (xv) Certification of Electrical and Electronic Components, Equipment and Product (xvi) Dangerous Goods List (xvii) Material Safety Data Sheet (MSDS) 	<p>participants having same or similar preferences to work together on pilot projects that meet their common preferences</p>

No.	Questions	Annotation																	
	(xviii) Letter of Credit (xix) Bill of Lading (xx) Invoice (xxi) Packing List (xxii) Import Permit (xxiii) Others (Please specify).....																		
8.8	<p>For each of the five (5) prioritized documents identified in 10.6, please provide further information on the following:</p> <p>(i) The implementing agency/party:</p> <table> <thead> <tr> <th>Documents</th> <th>Implementing agency/party</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> </tbody> </table> <p>(ii) How many % of the document and related processes is paperless?</p> <table> <thead> <tr> <th>Documents (%)</th> </tr> </thead> <tbody> <tr><td>.....</td></tr> <tr><td>.....</td></tr> <tr><td>.....</td></tr> <tr><td>.....</td></tr> </tbody> </table>	Documents	Implementing agency/party	Documents (%)	
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