

Legal and Technical Working Group of the Interim Intergovernmental Steering Group on Cross-border Paperless Trade Facilitation

Introduction

1. The checklist will help users to assess the degree to which the technical environment of their country is ready to support cross-border paperless trade, identify existing technical gaps and design actions to improve the technical environment. The checklist will also help to raise the awareness of its users on technical issues in cross-border paperless trade.
2. It should be noted that the checklist is not intended to assess the readiness of a country to join the Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific, which was adopted as a United Nations treaty in 2016. This treaty enables parties to gradually adapt their trade procedures and related systems for the purpose of cross-border trade without paper. It is not necessary to modernize procedures and systems before ratifying or acceding to the Agreement.¹ Paperless trade implementation is a work in progress, and the Framework Agreement is a tool meant to support such progress regardless of the level of readiness of a country.
3. The checklist is in the form of a questionnaire on technical issues and motivation factors in implementing paperless trade systems and cross-border data exchange. It is necessary to assess the status of paperless trade systems implementation at the national level before looking into readiness for cross-border data exchange. The checklist takes into consideration national issues such as the implementation of electronic and paperless transactions at the national level, and the importance of a single window for cross-border paperless trade data exchange. The questionnaire is structured into two sections: section A – paperless trade system at the national level and section B – national status towards cross-border data exchange.
4. Section A focuses on technical issues related to the implementation of electronic trade systems and paperless environment at the national level. Technical issues are grouped into the following eight categories: (a) institutional and governance bodies for electronic data exchange in paperless environment; (b) level of automation; (c) information and communications technology (ICT) infrastructure (connectivity, sustainability and recovery); (d) security; (e) business process re-engineering; (f) data harmonization and standardization; (g) capacity-building; and (h) other matters.
5. Section B is aimed at assessing the ability of a country or an organization to embark on cross-border paperless trade data exchange. The questions are related to various issues and challenges in the implementation of paperless trade systems and cross-border data exchange. The answers to these questions will help to reveal the current status and assess the level of readiness to implement paperless trade systems and cross-border data exchange.
6. The questions in sections A and B may be answered by the relevant government personnel involved in trade facilitation and cross-border trade activities. It is recommended that all relevant government personnel engaged in elements of paperless trade and key private stakeholders collaborate in completing the checklist.

¹ Detailed information on the Framework Agreement, including an explanatory note of the text and answers to frequently asked questions, is available at www.unescap.org/resources/framework-agreement-facilitation-cross-border-paperless-trade-asia-and-pacific.

A. Paperless trade system at the national level

No.	Questions	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
A1.	<p>Governance bodies²</p> <p>One of the critical success factors for implementation of paperless trade systems is strong commitment from the Head of Government, without which many projects of this magnitude tend to stall. When top management is committed to spearhead a project, issues of financial support and access to other resources may be addressed more readily. Coordination among government agencies and between the government and the private sectors is not an easy task but it can be carried out more efficiently and effectively with the establishment of an institutional body equipped with a strong governance structure. The institutional set-up provides a venue for relevant officials to come together to discuss functionalities and other technical as well as legal matters. By establishing the role and responsibilities of each unit/group as well as reporting mechanisms, the governance structure expedites the implementation of paperless trade systems.</p>		
A1.1	Is there a governance structure established for paperless trade, (e.g. national trade facilitation council)?		
A1.2	Does it include all the community partners/stakeholders (government and private sector)?		
A1.3	Who chairs this governance structure?		
A2.	<p>Level of automation</p> <p>It is not feasible for an organization or agency to consider implementing paperless trade systems without the ability to process electronic documents, information or data, let alone the subsequent cross-border data exchange.</p>		
A2.1	Electronic systems		
A2.1.1	<p>Has your country implemented electronic customs (and other services that facilitate customs declarations in an electronic format)?</p> <p><i>If yes, please answer A2.1.1.1–A2.1.1.6.</i></p>		
A2.1.1.1	Does it have the capability to receive, process and issue documents electronically?		
A2.1.1.2	Is it integrated with an electronic payment system?		
A2.1.1.3	Does it have the ability to authenticate users electronically?		
A2.1.1.4	Does it ensure data/document security?		

² This is an issue of policy nature.

No.	Questions	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
A2.1.1.5	What is the percentage of trade covered under this system?		
A2.1.1.6	Are community partners/stakeholders connected to it electronically?		
A2.1.2	Has your country implemented electronic port systems (including air, sea, road, rail, and inland ports)? <i>If yes, please answer A2.1.2.1–A2.1.2.6.</i>		
A2.1.2.1	Does it have the ability to receive, process and issue documents electronically?		
A2.1.2.2	Is it integrated with an electronic payment system?		
A2.1.2.3	Does it have the ability to authenticate users electronically?		
A2.1.2.4	Does it ensure data/document security?		
A2.1.2.5	What is the percentage of trade covered under these systems?		
A2.1.2.6	Are community partners/stakeholders connected to it electronically?		
A2.1.3	Has your country implemented electronic licenses, electronic permits and electronic certificates? (Please fill out the appendix for this question.)		
A2.1.4	Has your country implemented any cross-border trade systems other than those specified above? <i>If yes, please answer A2.1.4.1–A2.1.4.5.</i>		
A2.1.4.1	Does it have the ability to receive, process and issue documents electronically?		
A2.1.4.2	Is it integrated with an electronic payment system?		
A2.1.4.3	Does it have the capability to authenticate users electronically?		
A2.1.4.4	Does it ensure data/document security?		
A2.1.4.5	What is the percentage of trade covered under these systems?		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
A2.1.5	What is your country's targeted timeline to cover all trade transactions through these systems (i.e., e-customs, e-port, e-certificates, e-licenses, e-permits and others)?		
A2.2	Has a single window system been implemented in your country to expedite cargo movement/clearance and to facilitate the international trade supply chain? <i>If yes, please answer A2.2.1–A2.2.4. If no, please answer A2.2.5.</i>		
A2.2.1	How does it receive data electronically, i.e., what kind of user interface and communication channel is used (Internet-based network or dedicated/secured private network)?		
A2.2.2	Does it support a paperless environment?		
A2.2.3	How many agencies are connected to the single window? Please list them.		
A2.2.4	Who operates this system?		
A2.2.5	What is your country's future plan and the targeted timeline to implement a single window system?		

No.	Questions	Elaboration on status/issues/future plan	Timeline (if relevant) for future plan
A3.	<p>Information and communications technology infrastructure for paperless trade</p> <p>Good information and communications technology (ICT) infrastructure is an essential element of an efficient paperless trade system. The primary function of the network is to serve as a secure channel for information exchange between the participating parties. The lack of Internet service could be one of the obstacles to full implementation of a trade facilitation system when the business process is incomplete due to missing parties in network connectivity.</p> <p>There are various options of network, such as multiprotocol label switching (MLPS), Internet protocol (IP), virtual private network (VPN) and secure hypertext transfer protocol (HTTP). Regardless of the choice of options, the network should allow connectivity and interoperability between heterogeneous platforms and support various protocols and exchange paradigms within a secure operating environment. It is not uncommon that different stakeholders have different levels of computerization and systems on different platforms. To ease integration, interfacing and interoperability between these systems, a single window system which connects them needs to support interface with heterogeneous systems.</p> <p>Putting in place a strategic plan to address ICT infrastructure issues and a disaster recovery plan should be part of a business continuity plan. It is essential to ensure the effects of operating disruptions are properly mitigated.</p>		
A3.1	<p>Is network service available at all border posts, including ports, airports and cargo clearance facilities, 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>		
A3.2	<p>Are any of the systems mentioned in A2.1, "Electronic systems", connected via a common or single network?</p> <p><i>If yes, please answer A3.2.1–A3.2.6.</i></p>		
A3.2.1	<p>Is it integrated and secure?</p>		
A3.2.2	<p>Is it able to provide a high availability rate of minimum 99.9 per cent in terms of service level agreement for trade data exchange in paperless environment?</p>		
A3.2.3	<p>Is it able to support various communication protocols?</p>		
A3.2.4	<p>Is it able to provide secure information exchanges that ensure confidentiality and data integrity?</p>		
A3.2.5	<p>Is it designed to take into account future requirements such as device and technology upgrades?</p>		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
A3.2.6	If any of the above (A3.2.1–A3.2.5) is lacking, what is your country’s future plan to upgrade it and what is the targeted timeline?		
A3.3	Is the single window system, if implemented, interoperable with other systems?		
A3.3.1	Is it able to integrate, interface and/or interoperate with other existing heterogeneous systems (i.e., with systems on a different platform)?		
A 3.3.2	If it does support (i.e., is interoperable with) heterogeneous systems, what is the method of integration/interfaces?		
A3.4	Strategic plan to address ICT infrastructure issues		
A3.4.1	Does your country have a strategic plan to address ICT infrastructure issues (for paperless trade)?		
A.3.4.2	If not, what is your country’s future plan and targeted timeline to establish a strategic plan?		
A3.5	Disaster recovery		
A3.5.1	Is there a policy for the establishment of a disaster recovery plan at the agency level?		
A3.5.1.1	If yes, please indicate the level of implementation for the disaster recovery plan (specify percentage of agencies).		
A3.5.2	Is there a policy for the establishment of a disaster recovery plan at the national level?		
A3.5.2.1	If yes, please indicate whether the disaster recovery plan is implemented at the national level.		
A3.5.3	If there is no policy for the establishment of a disaster recovery plan, what is your country’s future plan and targeted timeline to set up a disaster recovery plan?		
A3.6	Does your country have a business continuity plan for paperless trade systems?		
A3.6.1	If yes, is it regularly tested at an established frequency?		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
A3.6.2	If not, what is your country's future plan and targeted timeline to develop a business continuity plan?		
A4.	Security The confidence of users to replace paper-based document with electronic information or data depends to an extent on the security of the information technology system that manages electronic data.		
A4.1	Is there an information technology security policy for your country? If yes, please specify.		
A4.2	If any of the systems mentioned in A2.1, "Electronic systems", have been implemented, what kind of security measures are in place to protect them from unauthorized access?		
A4.3	What kind of authentication mechanism is used to ensure security of information transmitted electronically?		
A4.4	What kind of communication protocol is used for electronic data exchange currently?		
A4.5	What is your country's future plan and targeted timeline to enhance the security level in A4.1 and A4.2?		
A5.	Business process re-engineering 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 jeopardize integration/interfacing with other systems if business processes across the board are not streamlined to ensure the seamless flow of information. Implementation of an electronic system often begins with parallel processing of paper documents, but the ultimate goal is to discontinue the usage of paper documents.		
A5.1	Have the stakeholders in your country conducted re-engineering and streamlining of business processes to support paperless trade or a national single window:		
A5.1.1	At the agency level? (Please list them.)		
A5.1.2	At the national level?		
A5.2	Has your country implemented any paperless trade transactions?		
A5.2.1	If yes, what kind of transactions have been implemented, and what type of electronic documents are exchanged?		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
A5.2.2	If not, what is your country's future plan and targeted timeline to do away with paper-based documents?		
A6.	Data harmonization and standardization Data compatibility is one of the main issues that needs to be addressed in various connectivity projects in and around the region. 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.		
A6.1	Has data harmonization and standardization been conducted for the data elements for paperless trade:		
A6.1.1	At the agency level?		
A6.1.2	At the national level?		
A6.1.3	If yes, has a data model been adopted and is it based on international standards/guidelines such as the United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport, United Nations Code for Trade and Transport Locations, Core Component Technical Specification, core component library and/or the World Customs Organization Data Model?		
A7.	Capacity-building Capacity-building is an ongoing activity in most projects but is important particularly at the outset to ensure stakeholders have a common understanding of the project and their respective roles and responsibilities to make it a success.		
A7.1	Has your country conducted any awareness programme and/or workshop to ensure the stakeholders, including government agencies and traders, have a common understanding on paperless trade as well as their respective roles to help realize cross-border paperless trade data exchange?		
A7.2	Do the stakeholders of cross-border trade in your country fully understand the single window approach?		
A7.3	Has your country conducted any awareness programme or workshop on single window?		
A7.4	What is your country's future plan and timeline to enhance capacity-building for cross-border paperless trade data exchange?		
A8.	Other matters		
A8.1	Computer literacy		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
A8.1.1	What is the level of computer literacy in the trading community in your country as a whole to support electronic transactions? (70–100%=high, 20–69%=medium, 0–19%=low)		
A8.1.2	Are they ready to accept changes arising from re-engineered business processes in implementing paperless trade systems?		
A8.2	Budget constraints		
A8.2.1	Does your country encounter budget constraints in implementing paperless trade systems?		
A8.2.2	If yes, what is your country's future plan to overcome this financial constraint and what is the targeted timeline?		

B. National status towards cross-border data exchange

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
<p>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 information technology systems support cross-border data exchange. 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 ease integration/interfacing for cross-border data exchange with dialogue partners.</p>			
B1.	Electronic systems		
B1.1	If any of the systems mentioned in A2.1, “Electronic systems” have been implemented, what percentage support cross-border data exchange?		
B2.	Single window system		
B2.1	If a single window system mentioned in A2.2 has been implemented, does it support cross-border data exchange?		
B2.2	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 dialogue partners?		
<p>When business process re-engineering is done on domestic procedures/processes for paperless transactions at the national level, it has to take into consideration requirements for cross-border data exchange whereby paper documents will not be exchanged across borders.</p>			
B3.	Business process re-engineering		
B3.1	If your country has implemented paperless transactions at the national level, as mentioned in A5.2, has re-engineering and streamlining of business processes been conducted to support cross-border data exchange?		
B3.2	If not, what is your country’s future plan and targeted timeline to develop a regional business process for cross-border data exchange?		
<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>			

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
B4.	Data harmonization and standardization		
B4.1	Has data harmonization and standardization been conducted based on international standards/guidelines, such as the United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport, United Nations Code for Trade and Transport Locations, single window recommendation of the United Nations Centre for Trade Facilitation and Electronic Business, to support cross-border paperless trade data exchange?		
B4.2	If not, what is your country's future plan and targeted timeline to minimize changes in your system process and database structure for cross-border data exchange electronically?		
B5.	<p>International transit</p> <p>The issues transit traders face under the current international transit procedure in many countries in the region include the following:</p> <p>(a) Repetitive submission of a customs transit declaration at entry to every country of transit;</p> <p>(b) 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 route: data and information of the customs transit declaration could be submitted and approved at the country of departure and shared across borders with the countries of transit and the country of destination.</p> <p>(b) A single guarantee to be valid for the whole transit route: relevant data/information of the guarantee could be registered at the country of departure and shared across borders with countries of transit and the country of destination.</p> <p>If single stop inspection is done by all controlling agencies in the exporting country and data of the inspection results are shared with the importing country, it will definitely expedite cargo clearance.</p>		
B5.1	Has the country implemented a paperless customs declaration for national transit procedures (inbound transit, outbound transit, inland transit)?		
B5.2	Has the country implemented a paperless customs declaration for international transit?		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
B5.2.1	<p>If yes, is the customs regime in your country able to support the 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 the duty rate of each country in the transit route, to be valid and accepted throughout the transit route?</p> <p>(ii) To agree on a regional/subregional format and content of the single guarantee?</p>		
B5.2.2	If not, what is your country's future plan and targeted timeline to address this issue?		
B5.3	Has your country implemented a one-stop inspection system by all controlling agencies at the borders at the time of exit/export?		
B5.3.1	If yes, are the inspection results shared with the importing country?		
B5.4	If not, is there any intention to implement a single-stop inspection and what is the timeline?		
B6.	<p>Awareness programme</p> <p>Awareness programmes are important for stakeholders to understand how cross-border data exchange could be carried out to reduce their anxiety and prepare them to address any issues that may arise.</p> <p>If a country lacks the expertise to carry out business process analysis, data harmonization and simplification, system development, project management, etc., it may look for technical assistance from external parties.</p>		
B6.1	Does your country have an awareness programme (for example, capacity-building, training, workshops) for stakeholders to have a better understanding of the following issues?		
B6.1.1	How could cross-border data exchange be implemented?		
B6.1.2	Potential business transactions and documents for cross-border data exchange?		
B6.1.3	Methods of identifying inhibitors that need to be addressed?		
B6.2	If your country has not conducted any awareness and capacity-building programmes		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
	related to B6.1.1–B6.1.3, what is your country’s future plan and targeted timeline to conduct an awareness programme?		
B6.3	Does your country have the capacity to carry out the following: (a) business process analysis; (b) data harmonization and simplification; (c) system development; and (d) project management?		
B7.	<p>Other matters</p> <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 a lack of trust in the economic operators of their dialogue partners. If your economic operators are able to comply with the authorized economic operator scheme and are mutually recognized by their dialogue partners, it will expedite cross-border data exchange.</p>		
B7.1	Authorized Economic Operator (AEO)		
B7.1.1	In general, what is the level of compliance of traders in your country (high, medium or low)?		
B7.1.2	Has the authorized economic operator scheme been implemented in your country		
B7.1.2.1	If yes, how extensive is the implementation in terms of the percentage of economic operators registered for the scheme?		
B7.1.3	Is your country ready to sign any mutual recognition agreements for authorized economic operators with dialogue partners?		
<p>In the preparatory stage, it is useful to assess the readiness of stakeholders to accept changes arising from cross-border data exchange and the availability of funds for any potential cross-border paperless trade project.</p>			
B7.2	<p>Are the stakeholders and the trade community ready 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 • Other (please specify) 		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
B7.3	Has your country's government budget provisioned for the transition to cross-border paperless trade data exchange?		
B7.3.1	If not, what is your targeted timeline?		
<p>Sharing information on a country's preferences on the prioritized documents for cross-border data exchange can help identify potential participants having the same or similar preferences to work together on pilot projects.</p>			
B7.4	<p>Is your country considering cross-border data exchange for any of the documents and related processes? (Y=Yes, N=No. Please select the top five prioritized documents)</p> <ul style="list-style-type: none"> (i) Seaway bill (ii) (Advance) Manifest (iii) Customs transit declaration (iv) Transit bond (v) Phytosanitary certificate (vi) Sanitary certificate (vii) Fumigation certificate (viii) Convention on International Trade in Endangered Species of Wild Fauna and Flora certificate (ix) Certificate of origin (preferential) (x) Certificate of origin (non-preferential) (xi) Pharmaceutical certificate (xii) National standard and quality certificate (xiii) International Organization for Standardization (ISO) and other international standards and quality certificates (xiv) Certificate for medical devices (xv) Certificate of electrical and electronic components, equipment and products (xvi) Dangerous Goods List (xvii) Material safety data sheet (xviii) Letter of credit (xix) Bill of lading (xx) Invoice (xxi) Packing list (xxii) Import permit 		

<i>No.</i>	<i>Questions</i>	<i>Elaboration on status/issues/future plan</i>	<i>Timeline (if relevant) for future plan</i>
	(xxiii) Others (please specify)		
B7.5	For each of the five prioritized documents identified in B7.4, please provide/specify further information on the following: document name; implementing agency; and percentage of the paperless documents and related processes.		

Appendix: Form for implementation of paperless trade by the other government agencies

Name of ministry or agency				
Permit type IL = import licence EL = export licence C/O = certificate of origin SC = sanitary / health certificates PS = phytosanitary certificates OT = other types				
1. Has business process re-engineering been conducted and completed?	Completed []	Ongoing []	Not conducted []	Don't know []
1.1. If it is on-going, when is it going to be completed? [Year/Month]			Please provide further information, such as website, date of implementation, etc.	
1.2. If it is not implemented, is there a plan to conduct it? [] Yes [] No [] Don't know				
1.3. If 1.2 is yes, when is it going to commence? [Year/Month]				
2. Has e-application (capability to receive, process and issue document electronically) been implemented?	Fully implemented []	Partially implemented []	Not implemented []	Don't know []
2.1. If it is not implemented, is there a plan to implement it? [] Yes [] No [] Don't know			Please provide further information, such as website, date of implementation, etc.	
2.2. If 2.1 is yes, when is it going to be implemented? [Year/Month]				
2.3 If it is implemented, how the supporting documents are being submitted? [] MSD = Manual Supporting Documents [] EDHC = Electronic Declaration/Application but hard copy still required [] any other methods (Please specify_____)				
3. Has e-application been connected to the e-customs system and/or the single window?	e-customs system []	Single Window []	Not connected []	Don't know []

<p>3.1. What is the level of integration between e-application and a single window and/or an e-customs system, if connected?</p> <p><input type="checkbox"/> Partially connected <input type="checkbox"/> Fully connected <input type="checkbox"/> Don't know</p> <p><i>Note:</i> Partially connected means electronic transfer of information is one-way, while fully connected means electronic transfer of information is reciprocal between an e-application and a single window and/or an e-customs system.</p>		<p>Please provide further information, such as website, date of implementation, etc.</p>	
<p>4. Is e-payment available for the e-application?</p>	<p>Yes <input type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	
<p>4.1. What are the available payment options for the e-Application?</p> <p><input type="checkbox"/> EFT = electronic funds transfer</p> <p><input type="checkbox"/> CD = cash deposit</p> <p><input type="checkbox"/> CC = credit card</p> <p><input type="checkbox"/> CSH = cash</p> <p><input type="checkbox"/> Other options (please specify _____)</p>		<p>Please provide further information, such as website, date of implementation, etc.</p>	
