



Paperless trade implementation in Bangladesh: Status, challenges, and way forward

Selim Raihan and Md. Tuhin Ahmed

United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific

Working Paper

No. 6 | 2023

The United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific (UNNExT) is a community of knowledge and practice for experts from developing countries and transition economies from Asia and the Pacific involved in the implementation of electronic trade systems and trade facilitation. The network aims to support national, sub-regional and transcontinental Single Window and paperless trade initiatives, with an emphasis on training, knowledge sharing, and application of international standards that are developed by the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), the World Customs Organization, and other relevant organizations. The UNNExT Secretariat is provided by ESCAP in cooperation with UNECE.

The UNNExT Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about trade facilitation issues. An objective of the series is to publish the findings quickly, even if the presentations are less than fully polished. UNNExT Working Papers are available online at <https://unnex.unescap.org/>. All material in the Working Papers may be freely quoted or reprinted, but acknowledgment is requested together with a copy of the publication containing the quotation or reprint. The use of the Working Papers for any commercial purpose, including resale, is prohibited.

Disclaimer:

The designations employed and the presentation of the material in this Working Paper do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. Where the designation “country or area” appears, it covers countries, territories, cities, or areas. Bibliographical and other references have, wherever possible, been verified. The United Nations bears no responsibility for the availability or functioning of URLs. The views expressed in this publication are those of the author(s) and do not necessarily reflect the views of the United Nations. The opinions, figures and estimates set forth in this publication are the responsibility of the author(s) and should not necessarily be considered as reflecting the views or carrying the endorsement of the United Nations. Any errors are the responsibility of the author(s). The mention of firm names and commercial products does not imply the endorsement of the United Nations.

Paperless trade implementation in Bangladesh: Status, challenges, and way forward

Selim Raihan¹ and Md. Tuhin Ahmed²

Please cite this paper as:

Raihan, S. and Ahmed, M. T. (2023). "Paperless trade implementation in Bangladesh: Status, challenges, and way forward", **UNNEXT Working Paper Series** No. 6, September 2023, Bangkok, ESCAP.

Available at <https://unnex.unescap.org/>

¹ Professor of Economics, Dhaka University and Executive Director, SANEM

² Lecturer of Economics, Mawlana Bhashani Science & Technology University, Bangladesh, and Senior Research Associate, SANEM

Abstract

The paperless trade facilitation initiative aims to accelerate the implementation of digital trade facilitation measures to promote trade and foster development in developing nations. This initiative holds great promise in countries like Bangladesh, where bureaucratic red tape hinders commerce, drives up costs, and diminishes product quality. However, Bangladesh faces significant challenges on this front. Numerous government agencies do not collaborate effectively, and many of them still rely heavily on manual trade documents. The absence of proper digital laws further complicates the implementation of paperless trade, and the lack of alignment among existing laws adds to the difficulty. Nevertheless, the effective implementation of paperless trade, coupled with the establishment of the Bangladesh National Single Window (BNSW), can save valuable time and contribute to a smoother trading system. Bangladesh can fully capitalize on this opportunity, especially as it is poised to transition from a Least Developed Country (LDC) to a Developing Country (DC) by 2026. Achieving paperless trade in Bangladesh is a protracted and intricate process that demands appropriate legislative support, as well as well-devised strategies and logistics. Collaborative efforts between the government and business sectors will undoubtedly enhance this transition. It is also important to acknowledge that various challenges and risks may arise during this transition, potentially slowing down progress or even jeopardizing its success.

Keywords: Paperless trade, Cross-border paperless trade, Trade facilitation, Bangladesh National Single Window (BNSW), Bangladesh

JEL Codes: F13, O17, K23

Table of Contents

Abstract	iv
List of Tables	vii
List of Figures	vii
Acronyms and Abbreviations	viii
1. Introduction	1
2. Methodology	3
2.1 Desk reviews of relevant documents	3
2.2 Interviews with stakeholders	4
3. Overview of trade facilitation implementation in Bangladesh	4
3.1 Comparison of trade facilitation measures between Bangladesh and regional blocs	6
3.2 Comparison of paperless trade implementation measures between Bangladesh and regional blocs	8
3.3 Comparison of cross-border paperless trade implementation measures between Bangladesh and regional blocs.....	8
3.4 Overview of the implementation status of paperless and cross-border paperless trade in Bangladesh (2015-2021).....	9
3.5 Comparison of paperless and cross-border paperless trade implementation among BBIN countries.....	12
4. Initiatives for domestic and cross-border paperless trade	13
4.1 Analysis of legal arrangements to implement paperless trade	13
4.1.1 Legal arrangements for the domestic paperless trade.....	13
4.1.2 Legal arrangements for the cross-border paperless trade.....	15
4.2 Technical arrangements to implement paperless trade	17
4.2.1 Technical arrangements for the domestic paperless trade	17
4.2.2 Technical arrangements for the cross-border paperless trade	18
4.3 Institutional arrangements to implement paperless trade	20
4.3.1 Institutional arrangements for domestic paperless trade	20
4.3.2 Institutional arrangements for cross-border paperless trade	20
5. Bangladesh National Single Window	21
5.1 Agencies integrated with BNSW	22
5.2 Documents integrated with BNSW:	24
5.3 Processes and current operations of BNSW	25
5.4 Challenges in the implementation of BNSW.....	25

6. Challenges in the implementation of paperless trade in Bangladesh.....	26
6.1 Legal challenges	26
6.2 Technical challenges.....	27
6.3 Institutional challenges.....	28
7. Framework Agreement on Facilitation of Cross-border Trade in Asia and the Pacific.....	29
7.1 Bangladesh's approach to the agreement.....	30
7.2 Implications of ratifying the agreement.....	30
8. Way forward.....	32
8.1 Recommendations based on the assessment of technical actions	32
8.2 Recommendations based on the assessment of legal support	33
8.3 Recommendations based on the assessment of institutional support.....	34
References.....	35
Annex 1: List of the name of interviewed stakeholders	36
Annex 2: List of the name of the agencies that will be integrated with NSW	36
Annex 3: Documents required for Bangladesh's international trade and their paperless status.....	37

List of Tables

Table 1: National policy documents related to domestic and cross-border paperless trade	3
Table 2: Yearly overview of the implementation status of paperless and cross-border paperless trade	10
Table 3: Overview of paperless and cross-border paperless trade implementation with major implementing agencies	11
Table 4: Comparison of paperless trade implementation among BBIN countries	12
Table 5: Comparison of cross-border paperless trade implementation among BBIN countries	13
Table 6: Individual action plan on paperless trade facilitation regarding electronic transactions and signature laws	14
Table 7: Individual action plan on paperless trade facilitation regarding Single Window laws	15
Table 8: Individual action plan on cross-border paperless trade facilitation	16
Table 9: Individual action plan on paperless trade facilitation regarding automation	17
Table 10: Individual action plan on paperless trade facilitation regarding ICT infrastructure .	18
Table 11: Individual action plan on paperless trade facilitation regarding business process re-engineering.....	18
Table 12: Awareness, capacity building and others	19
Table 13: Individual action plan on cross-border paperless trade facilitation	19
Table 14: Individual action plan on institutional and governance bodies for electronic data exchange in a paperless environment	21
Table 15: Permitting and e-application status of NBR and MoC.....	23
Table 16: Individual action plan regarding the ratification of the agreement	30

List of Figures

Figure 1: Bangladesh's trade facilitation implementation over the years (2015–2021).....	6
Figure 2: Digital and Sustainable Trade Facilitation of Bangladesh in 2021	7
Figure 3: Moving toward cross-border paperless trade: Cumulative implementation score of core groups of trade facilitation measures in BBIN countries, 2021	7
Figure 4: Implementation of paperless trade measures in Bangladesh, 2021	8
Figure 5: Implementation of cross-border paperless trade measures in Bangladesh, 2021	9

Acronyms and Abbreviations

a2i	Access to Information
ACU	Asian Clearing Union
AEO	Authorized Economic Operator
ASYCUDA	Automated System for Customs Data
BAEC	Bangladesh Atomic Energy Commission
CAAB	Bangladesh Civil Aviation Authority
BCC	Bangladesh Computer Council
BEPZA	Bangladesh Export Processing Zones Authority
BFTI	Bangladesh Foreign Trade Institute
BGMEA	Bangladesh Garments Manufacturers Association
BIWTA	Bangladesh Inland Water Transport Authority
BIDA	Bangladesh Investment Development Authority
BKMEA	Bangladesh Knitwear Manufacturers and Exporters Association
BSBK	Bangladesh Land Port Authority
MoS	Bangladesh Ministry of Shipping
BNACWC	Bangladesh National Authority for Chemical Weapons Convention
BNSW	Bangladesh National Single Window
BRCP-1	Bangladesh Regional Connectivity Project 1
BSTI	Bangladesh Standards and Testing Institute
BBIN	Bangladesh, Bhutan, India and Nepal
BGB	Border Guard Bangladesh
BIN	Business Identification Number
BPR	Business Process Re-engineering
CO	Certificate of Origin
CCI & E	Chief Controller of Imports & Exports
CCI&E	Chief Controller of Imports and Exports
CP	Clearance Permit
CTMS	Container Terminal Management System
CH	Customs House
DC	Developing Country
DSA	Digital Security Act
ESCAP	Economic and Social Commission for Asia and the Pacific
e-CO	Electronic Certificate of Origin
EDI	Electronic Data Interchange
e-SPS	Electronic Sanitary and Phytosanitary Standards
EU	European Union
EBA	Everything But Arms
EPB	Export Promotion Bureau
FDI	Foreign Direct Investment
GSP	Generalized System of Preference
GSDSTF	Global Survey on Digital and Sustainable Trade Facilitation
GoB	Government of Bangladesh
GSI	Government Secured Intranet
IGM	Import General Manifesto
IP	Import Permit
ICT	Information and Communication Technology
ITA	Information Technology Agreement
ITTFC	Inter-Ministerial and Transport Facilitation Committee
IDA	International Development Association
LC	Land Customs
LCS	Land Customs Station

LDC	Least Developed Country
MoU	Memoranda of Understanding
MoC	Minister of Commerce
NBR	National Board of Revenue
NCTTF	National Council for Trade and Transport Facilitation
NSW	National Single Window
NSWWG	National Single Window (NSW) Working Group
NTFC	National Trade Facilitation Committee
CGA	Office of the Controller of Accounts
OLM	Online Licensing Module
OGAs	Other Government Agencies
POS	Point of Sale
PIU	Project Implementation Unit
RKC	Revised Kyoto Convention
SWIF	Single Window Implementation Framework
SME	Small and Medium Enterprise
SWIFT	Society for Worldwide Interbank Financial Telecommunication
SASEC	South Asia Subregional Economic Cooperation
SAARC	South Asian Association for Regional Cooperation
TIN	Tax Identification Number
TFA	Trade Facilitation Agreement
TIC	Trade Information Centre
UNLK	UN Layout Key
UN	United Nations
UNCITRAL	United Nations Commission on International Trade Law
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
VAT	Value Added Tax
VPN	Virtual Private Network
WCO	World Customs Organization
WEF	World Economic Forum
WTO	World Trade Organization
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business

1. Introduction

Paperless trade is a concept of trade digitalization where the whole trade system, including the exchange of trade-related data and documents, functions is governed based on electronic communications (Ha & Lim, 2014; UNESCAP, 2016; Duval & Mengjing, 2017). As part of Bangladesh's continuous efforts to achieve the title of 'Digital Bangladesh,' the Government of Bangladesh (GoB) is attempting to take the country's trade system to another level by making it as efficient as possible (GoB, 2012). Keeping this vision in mind, Bangladesh has adopted the Trade Facilitation Agreement (TFA) under the World Trade Organization (WTO) in December 2013 to ensure its trade efficiency by reducing higher trade transaction costs and effectively simplifying the time-consuming processing of related trade documentation, which had come to force on 2017. In addition, the GoB signed the Revised Kyoto Convention (RKC), WTO Customs Valuation Agreement, and WTO Sanitary and Phytosanitary Agreement, and introduced the Automated System for Customs Data (ASYCUDA) to progress toward paperless trade (UNESCAP, 2019a). Following these initiatives, Bangladesh is on the verge of implementing an electronic National Single Window (NSW), automated customs systems and e-customs to facilitate the paperless cross-border supply chain management and the challenges associated with trade logistics.

Paperless trade systems can benefit traders by reducing costs through the faster movement of goods and services as well as greater efficiency at border agencies in which exchange involves trade-related documents (WEF, 2017). Estimates reveal that trade costs can be reduced by 14.3% on average, only by the complete implementation of the TFA (WTO, 2015). Furthermore, it can significantly benefit the least developed countries like Bangladesh through boosting global trade by up to \$1 trillion per year. Also, paperless trading is likely to lead to greater efficiencies in the developing countries primarily because it will reduce time and harassment in export & import of goods, simplify trade procedures along with the bureaucratic red tape to prevent delays in trade activities, increase transparency, induce compliance with higher governmental revenues, decrease trade costs & hold the quality of goods, and so on. Especially from Bangladesh's perspective, the cost of providing paper-based documents for cross-border trade is a major expense to the traders due to bureaucratic red tape and higher administrative charges involved in freight management.

Bangladesh will be able to reduce trade costs by 33% after the effective implementation of the TFA along with efficient regulation of cross-border paperless trade measures. This reduction in trade costs amounts to the ultimate potential to increase cost savings by more than \$0.7 billion per year (ESCAP, 2017). Thus, paperless trade can remarkably make trade finance much cheaper and more efficient due to faster merchandise transit mechanisms. Additionally, it will save time by adequately managing the administrative paperwork process and purging settlement failures. Moreover, an excessive number of documents and complex documentation

required for trading has always been intimidating and discourages many businesses from participating in cross-border trade in Bangladesh (Ha & Lim, 2014). However, a paperless trade system can efficiently address this issue by advancing regulatory control during the exchange of data among the agencies across the border and augmenting customs revenues by effectively evaluating compliance risks of transactions during shipments.

It is, therefore, crucial to understand the current situation and measures pertaining to domestic and cross-border paperless trade in Bangladesh. According to the UN Global Survey on Digital and Sustainable Trade Facilitation (GSDSTF) in 2021, in the last two years, Bangladesh has made significant progress in implementing trade facilitation measures, particularly in trade facilitation for SMEs and paperless trade, although the country's institutional arrangements and collaboration have not improved at all. Nonetheless, Bangladesh has manifested a strong obligation to put paperless trade systems into operation with the National Trade Facilitation Committee (NTFC) and the Ministry of Commerce (MoC) to ensure check and balance among the government and private organizations. Furthermore, a technical committee has been formed to implement the measures required to establish e-customs to electronically approve, receive, and process trade-related paperwork.

However, there are no legal laws and regulations in place to ensure that trade-related data and documents will be exchanged across borders in the future. Consequently, a total paperless transition is not easily attainable. The establishment of relevant laws and regulations, as well as the efficiency of recognized certification authorities (such as Bangladesh Standards & Testing Institution or BSTI), are, therefore, critical in this regard.

The overall benefits of the paperless trading system among stakeholders, governments and traders have led to an increasing amount of responsibilities to ensure the successful implementation and regulation of the mechanism, especially for a developing country like Bangladesh. Accordingly, this paper analyzes the trade facilitation implementation measures and the initiatives taken so far to implement domestic and cross-border paperless trade in Bangladesh, including the elaborate functioning of legal, regulatory, and institutional frameworks. It also presents a descriptive overview of the framework agreement on the facilitation of cross-border trade and highlights the current status of the National Single Window approach. Moreover, it showcases the overall obstacles along with the probable measures taken to counterpart them in terms of the effective implementation of domestic and cross-border paperless trade. Correspondingly, the principal objectives of the study are as follow:

- (1) To understand the implementation status of domestic and cross-border paperless trade in Bangladesh
- (2) To analyze the functioning of the Bangladesh National Single Window

To identify challenges in the implementation of paperless trade and measures (being) taken to address the challenges

2. Methodology

The methodology of the study comprises two integral parts-desk reviews of relevant documents and interviews with stakeholders.

2.1 Desk reviews of relevant documents

To understand the initiatives for domestic and cross-border paperless trade the country adopted so far, the study reviews several resources (national and international documents) and literature. Table 1 presents the reviewed relevant national policy documents amongst others.

Table 1: National policy documents related to domestic and cross-border paperless trade

SI. No.	Name of national policy documents related to domestic and cross-border paperless trade
1	Readiness Assessment of Paperless Trade in Bangladesh
2	Digital Commerce Guideline 2021
3	Regulations on Electronic Fund Transfer 2014
4	Strategic Priorities of Digital Bangladesh 2021
5	Customs Modernization: Strategic Action Plan (2019-2022)
6	National ICT Policy 2018
7	Export Policy Order 2018-2021
8	Import Policy Order 2015-2018
9	Information & Communication Technology Act in 2006 (Amended in 2009 & 2013)
10	Bangladesh Customs Act (1969, revised in 2019)
11	Evidence Act of 1872
12	Digital Security Act (DSA) (2018)
13	Competition Act 2012

Besides, the study reviews several international documents along with national documents to understand the National Single Window (NSW) and Framework Agreement on Facilitation of Cross-border Trade in Asia and the Pacific.

2.2 Interviews with stakeholders

Several stakeholders across different agencies engaged in domestic and cross-border paperless trade implementation were interviewed. National Board of Revenue (NBR) correspondents were part of KILs and provided the relevant information regarding the Bangladesh National Single Window (BNSW). Stakeholders from the ICT Division, Ministry of Commerce, and Bangladesh Customs were also involved in the interviews which supported the authors to obtain other insightful findings. Annexe 1 contains a list of the stakeholders who were interviewed.

3. Overview of trade facilitation implementation in Bangladesh

According to World Trade Organization (WTO), trade facilitation is “the simplification and harmonisation of international trade procedures, where trade procedures are the activities, practices, and formalities involved in collecting, presenting, communicating, and processing data and other information required for the movement of goods in international trade.” Initiatives to strengthen trade facilitation can reduce the costs and time it takes to the processes of export and import. However, trade costs in developing nations can be equivalent to a 219 per cent tariff, whereas they can be equal to a 134 per cent ad valorem tax on commodities in developed nations (WTO, 2015). Against this backdrop, the WTO and UNESCAP have developed independent but complementary frameworks to promote smooth trade facilitation.

Under the WTO and UNESCAP framework, the GoB has made several efforts in facilitating the flow of goods and services across its borders during the last few years. Bangladesh, for example, adopted the WTO FTA and notified 34.5 per cent of all measures under Category A³ of the WTO FTA, with possibilities for improvement in the indicators under Category B⁴ and C⁵ (UNESCAP, 2019a). Similarly, the country signed and ratified the framework agreement on the facilitation of cross-border paperless trade in Asia and the Pacific as soon as it was open for accession. Besides, the country’s National Board of Revenue's Customs Modernization Strategic Action Plan for 2019-2022, adopting the One-Stop Service Act, and improving strategies for the business enabling environment for more inclusive growth and improved food safety and security measures are just a few of the policy commitments. The GoB has also upgraded its customs website and established a National Enquiry Point, as well as is

³ Category A indicating measures are implemented

⁴ Category B indicating more time is needed for implementation

⁵ Category C indicating capacity building is required before implementation

implementing Advanced Ruling and launching a program for Authorized Economic Operators (AEO). The GoB will shortly begin putting its Risk Management Decree into effect, as well as working to prepare for a Single Window.

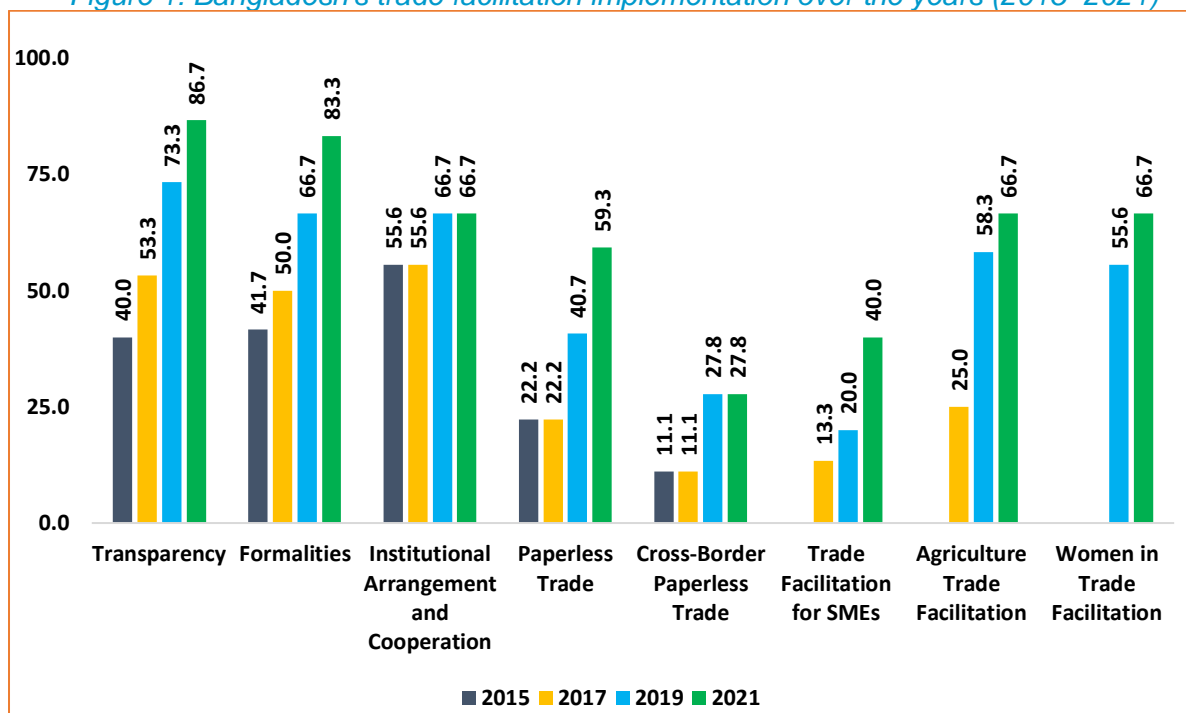
This section examines Bangladesh's progress in adopting trade facilitation measures⁶ based on data from the United Nations Global Survey on Digital and Sustainable Trade Facilitation 2021 (GSDSTF). The GSDSTF includes 58 trade facilitation measures divided into four sections: general trade facilitation measures, digital trade facilitation measures, sustainable trade facilitation measures, and other trade facilitation measures, and so goes beyond the WTO TFA set of measures (ESCAP, 2021). There are 11 sub-categories within these four basic areas of indicators⁷.

The latest data from GSDSTF shows that Bangladesh has made significant progress in adopting trade facilitation measures in many indicators over the years (Figure 1). In the case of the trade facilitation score, Bangladesh has taken a big step in 2021 with a 64.52% score while it was 35.48% in 2017. The most improved categories of trade facilitation measures in the GSDSTF survey for Bangladesh over the years (2015-2021) have been Transparency (from 40% to 86.67%), Formalities (from 41.67% to 83.33%), Institutional Arrangements and Cooperation (from 55.56% to 66.67%), Paperless trade (from 22.22% to 59.26%) and Cross-Border Paperless Trade (from 11.11% to 27.78%).

⁶ <https://www.untfsurvey.org/>

⁷ General trade facilitation measures include the sub-categories 'transparency measures', 'formalities measures', 'institutional arrangement and cooperation measures', and 'transit facilitation'. Digital trade facilitation measures include 'paperless trade measures' and 'cross-border paperless trade measures'. Sustainable trade facilitation measures include 'trade facilitation for SMEs measures', 'agriculture trade facilitation measures' and 'women in trade facilitation measures'. Other trade facilitation measures, a new sub-category added in 2021, include 'trade finance facilitation measures' and 'trade facilitation in times of crisis' measures.

Figure 1: Bangladesh's trade facilitation implementation over the years (2015–2021)



Source: UN Global Survey on Digital and Sustainable Trade Facilitation, (2015-2021)

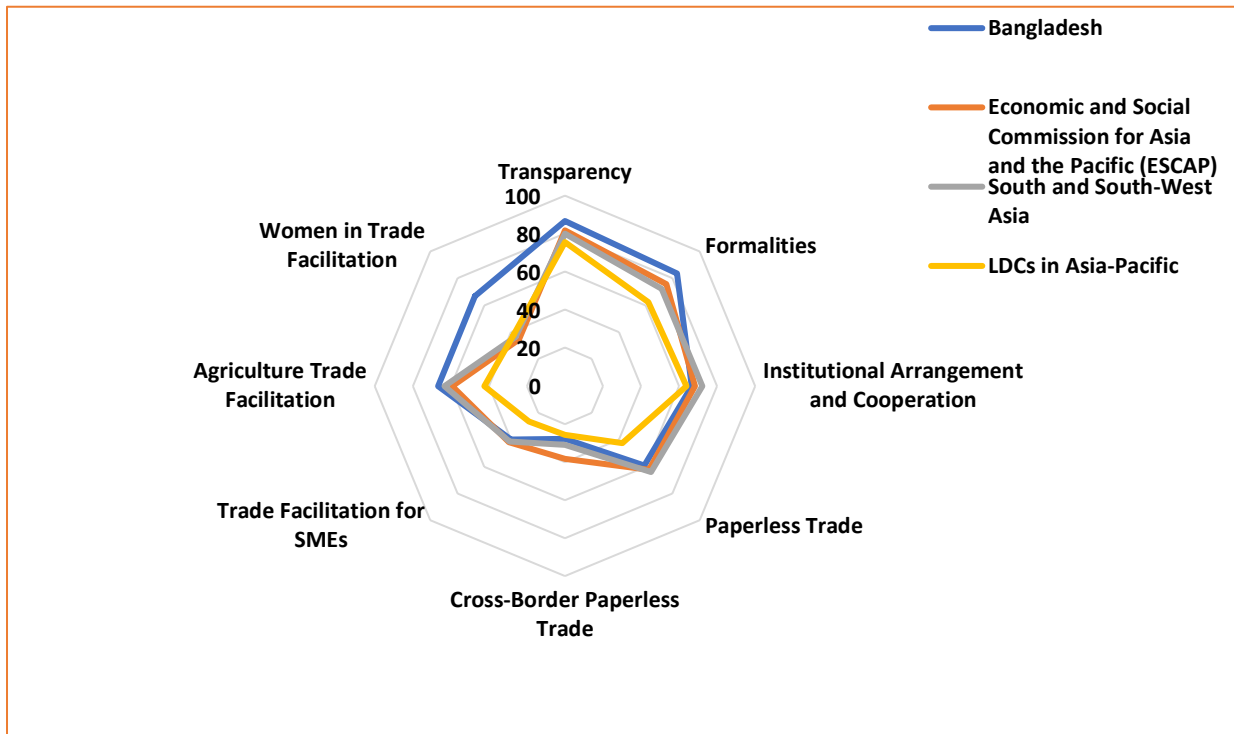
3.1 Comparison of trade facilitation measures between Bangladesh and regional blocs

Not only in the indicators of trade facilitation measures in the GSDSTF, but Bangladesh has also shown an exceptional effort compared with other regional blocs such as Economic and Social Commission for Asia and the Pacific (ESCAP) countries (65.85%), South and South-West Asia (63.12%), and LDCs in Asia-Pacific (51.79%).

Despite such progress, Bangladesh still lags behind in some notable indicators, particularly in the implementation of ‘Cross-Border Paperless Trade’ (27.8%) and ‘Trade Facilitation for SMEs’ (40%). Bangladesh’s performance has been substantial in the ‘Transparency’ (86.67%), ‘Formalities’ (83.33%), ‘Institutional Arrangement and Cooperation’ (66.67%) whereas the global average in these indicators is 77.96%, 74.86% and 68.75% respectively (Figure 2).

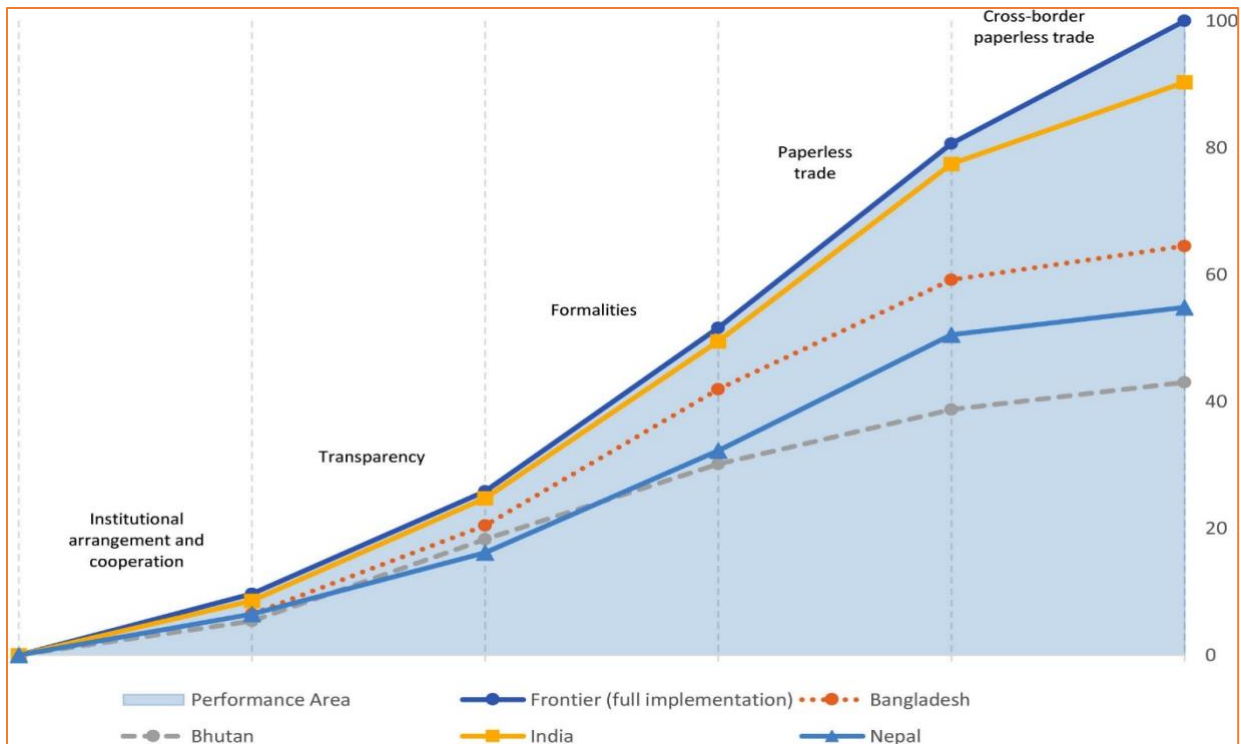
Meanwhile, the following figure (Figure 3) compares the overall trade facilitation implementation across BBIN (Bangladesh, Bhutan, India, and Nepal) countries. In the last two years, BBIN countries have made pivotal progress on trade facilitation measures. However, except for India, paperless trade and cross-border paperless trade implementation still have a long way to go.

Figure 2: Digital and Sustainable Trade Facilitation of Bangladesh in 2021



Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021

Figure 3: Moving toward cross-border paperless trade: Cumulative implementation score of core groups of trade facilitation measures in BBIN countries, 2021

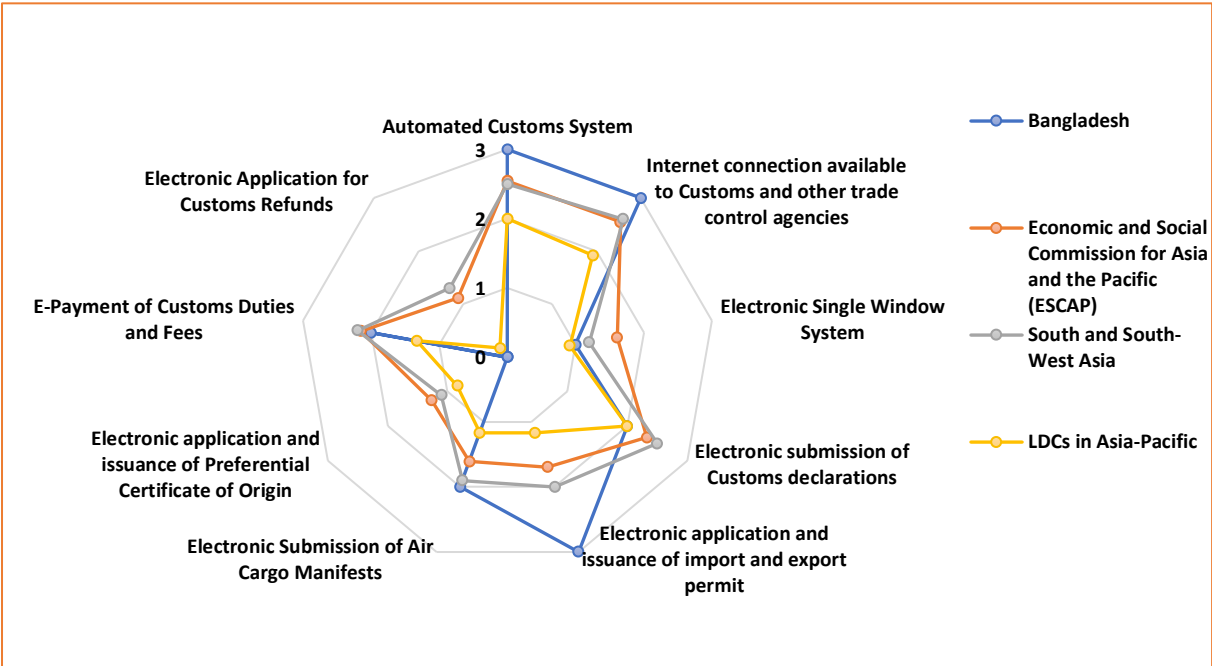


Note: Maximum possible implementation score is 100. For each group of measures, a slope less steep than the frontier or the benchmark implies lower levels of implementation. Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021; Untfsurvey.org

3.2 Comparison of paperless trade implementation measures between Bangladesh and regional blocs

In the indicators of paperless trade implementation status under the ‘Digital and Sustainable Trade Facilitation’ measure, Bangladesh has made some good progress. The country’s paperless trade implementation score⁸ has increased by around 37 percentage points to 59.26% in 2021 from 22.22% in 2015. Although Bangladesh's paperless trade implementation score in 2021 (59.26%) is higher than that of LDCs in Asia-Pacific (42.59%), it still trails regional blocs such as the Economic and Social Commission for Asia and the Pacific (ESCAP) (62.40%) and South and South-West Asia (64.07) (Figure 4).

Figure 4: Implementation of paperless trade measures in Bangladesh, 2021



Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021

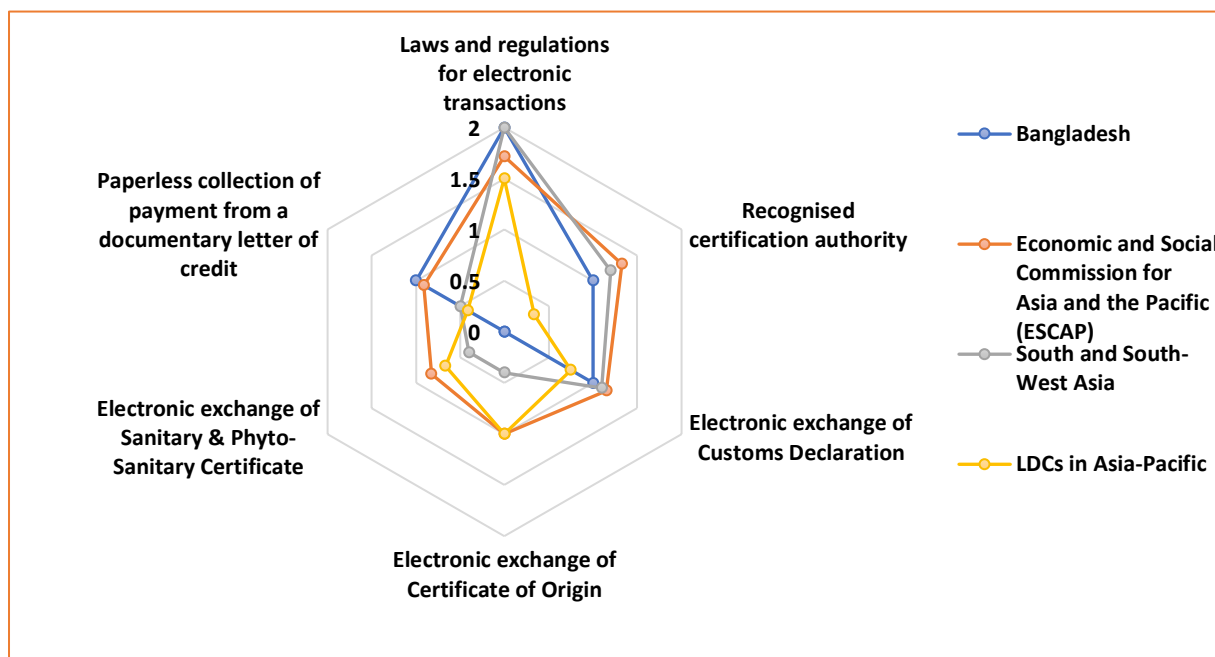
3.3 Comparison of cross-border paperless trade implementation measures between Bangladesh and regional blocs

When comes to the cross-border paperless trade implementation measures, Bangladesh is not in a good position at all. Bangladesh could make only a 16.67% improvement in this measure between 2015 and 2021 whereas, in 2015, the value was 11.11%.

Despite the fact that Bangladesh’s cross-border paperless implementation score (27.78%) is better than that of LDCs in Asia-Pacific (25.93%), it is lowermost among ESCAP (38.53%) and South and South-West Asia (31.11%)

⁸ See, UN Global Survey on Digital and Sustainable Trade Facilitation, 2021. Available at: <https://www.unfctsurvey.org/economy?id=NPL>

Figure 5: Implementation of cross-border paperless trade measures in Bangladesh, 2021



Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021

3.4 Overview of the implementation status of paperless and cross-border paperless trade in Bangladesh (2015-2021)

While implementation of transparency and other general measures is in line with the Asia-Pacific regional average, implementation in the area of paperless trade and cross-border paperless trade remains below average for Bangladesh and there are a lot of scopes to improve this status. Especially in cross-border paperless trade, there are a lot of steps that need to be implemented in a very short period. Table 2 includes a total of 16 measures of digital trade facilitation for paperless trade and cross-border paperless trade from the GSDSTF survey from 2015 to 2021. These measures define the current status and improvisation of digital trade facilitation.

When comes to paperless trade measures, Bangladesh has fully implemented 'Automated Customs System,' 'Internet connection available to Customs and other trade control agencies,' 'Electronic application and issuance of import and export permit' but there are some indicators that are still in planning stage such as 'Electronic Single Window System' which is commonly known as Bangladesh National Single Window (BNSW). Some components which are taken for digital trade facilitation are on the partially implemented stage like 'Electronic submission of Customs declarations,' 'Electronic Submission of Sea Cargo Manifests,' 'Electronic Submission of Air Cargo Manifests,' 'E-Payment of Customs Duties and Fees'.

In the case of cross-border paperless trade implementation status, except for the 'Laws and Regulations for Electronic Transactions,' Bangladesh is still behind in every aspect of the global average. If we look at the individual measures of implementation of cross-border paperless trade, no index has been completely implemented. Only 'Laws and

Regulations for Electronic Transactions’ is partially implemented. Other than that, ‘Recognized certification authority,’ ‘Electronic exchange of Customs Declaration,’ ‘Paperless collection of payment from a documentary letter of credit’ are still in the planning stage. Another signal of a bad situation in cross-border paperless trade implementation is that ‘Electronic exchange of Certificate of Origin’ and ‘Electronic exchange of Sanitary & Phyto-Sanitary Certificate’ are still not available.

Table 2: Yearly overview of the implementation status of paperless and cross-border paperless trade⁹

Serial	Measures	Survey 2015	Survey 2017	Survey 2019	Survey 2021
1	Automated Customs System	Partially implemented	Partially implemented	Partially implemented	Fully implemented
2	Internet connection available to Customs and other trade control agencies	Partially implemented	Partially implemented	Partially implemented	Fully implemented
3	Electronic Single Window System	Not available	Not available	Planning stage	Planning stage
4	Electronic submission of Customs declarations	Partially implemented	Partially implemented	Partially implemented	Partially implemented
5	Electronic application and issuance of import and export permit	Not available	Not available	Planning stage	Fully implemented
6	Electronic Submission of Sea Cargo Manifests	Partially implemented	Partially implemented	Partially implemented	Partially implemented
7	Electronic Submission of Air Cargo Manifests	Not available	Not available	Partially implemented	Partially implemented
8	Electronic application and issuance of Preferential Certificate of Origin	Not available	Not available	Not available	Not available
9	E-Payment of Customs Duties and Fees	Not available	Not available	Planning stage	Partially implemented
10	Electronic Application for Customs Refunds	Not available	Not available	Not available	Not available
11	Laws and regulations for electronic transactions	Partially implemented	Partially implemented	Partially implemented	Partially implemented
12	Recognized certification authority	Not available	Not available	Planning stage	Planning stage
13	Electronic exchange of Customs Declaration	Not available	Not available	Planning stage	Planning stage
14	Electronic exchange of Certificate of Origin	Not available	Not available	Not available	Not available
15	Electronic exchange of Sanitary & Phyto-Sanitary Certificate	Not available	Not available	Not available	Not available

⁹ See, UN Global Survey on Digital and Sustainable Trade Facilitation, 2021. Available at: <https://www.untfsurvey.org/economy?id=BGD>

16	Paperless collection of payment from a documentary letter of credit	Not available	Not available	Planning stage	Planning stage
----	---	---------------	---------------	----------------	----------------

Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021

The overview of paperless and cross-border paperless trade implementation status with major implementing agencies is presented in Table 3. Among the 16 measures, customs is the fundamental implementing agency. For the ‘Electronic application and issuance of import and export permit,’ ‘Electronic application and issuance of Preferential Certificate of Origin,’ and ‘Electronic exchange of Certificate of Origin,’ the Ministry of Commerce is the key agency. Bangladesh Standard and Testing Institute and Plant Quarantine Department amongst others are the primary implementing agencies for ‘Electronic exchange of Sanitary & Phyto-Sanitary Certificate.’

Table 3: Overview of paperless and cross-border paperless trade implementation with major implementing agencies

Serial	Measures	Implementation Status (Survey 2021)	Major implementing agency
1	Automated Customs System	Fully implemented	Customs
2	Internet connection available to Customs and other trade control agencies	Fully implemented	Customs+others
3	Electronic Single Window System	Planning stage	Customs+others
4	Electronic submission of Customs declarations	Partially implemented	ASYCUDA World under Customs
5	Electronic application and issuance of import and export permit	Fully implemented	Ministry of Commerce, Chief Controller of Imports and Exports
6	Electronic Submission of Sea Cargo Manifests	Partially implemented	ASYCUDA World under Customs
7	Electronic Submission of Air Cargo Manifests	Partially implemented	ASYCUDA World under Customs
8	Electronic application and issuance of Preferential Certificate of Origin	Not available	Ministry of Commerce
9	E-Payment of Customs Duties and Fees	Partially implemented	Customs+Bangladesh Bank
10	Electronic Application for Customs Refunds	Not available	Customs
11	Laws and regulations for electronic transactions	Partially implemented	Customs+others
12	Recognized certification authority	Planning stage	Customs+others
13	Electronic exchange of Customs Declaration	Planning stage	Customs+others
14	Electronic exchange of Certificate of Origin	Not available	Ministry of Commerce

15	Electronic exchange of Sanitary & Phyto-Sanitary Certificate	Not available	Bangladesh Standard and Testing Institute + Plant Quarantine Department.
16	Paperless collection of payment from a documentary letter of credit	Planning stage	Banks

Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021 & KIIs from relevant stakeholders in Bangladesh

3.5 Comparison of paperless and cross-border paperless trade implementation among BBIN countries

BBIN countries¹⁰ are lagging behind in the case of implementing digital paperless trade facilitation. Particularly in the digital trade facilitation, the region is way behind other regional blocs like South and East Europe, Caucasus and Central Asia, Latin America, and the Caribbean. Among the BBIN countries, Bangladesh is positioned after India. In the case of paperless trade implementation, Bangladesh's position is quite convincing and promising with one-third of the portion status fully implemented while India managed to implement more than half of the status (Table 4).

Table 4: Comparison of paperless trade implementation among BBIN countries

Measures	Bangladesh	Bhutan	India	Nepal
Automated Customs System	3	2	3	3
Internet connection available to Customs and other trade control agencies	3	3	3	3
Electronic Single Window System	1	0	3	1
Electronic submission of Customs declarations	2	1	3	3
Electronic application and issuance of import and export permit	3	0	3	2
Electronic Submission of Sea Cargo Manifests	0	0	0	0
Electronic Submission of Air Cargo Manifests	2	0	3	2
Electronic application and issuance of Preferential Certificate of Origin	0	0	2	2
E-Payment of Customs Duties and Fees	2	2	3	1
Electronic Application for Customs Refunds	0	0	3	0

Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021

In the case of cross-border paperless trade, except for India, all countries in the BBIN region are in a nascent condition. Bangladesh still needs to work on planning and implementation as most of the measures are still not available and the planning stage (Table 5).

¹⁰ Data on BBIN countries have been included to generate the data table: The following scoring has been applied: 0: Not implemented; 1: Planning stage; 2: Partially implemented; 3: Fully implemented

Table 5: Comparison of cross-border paperless trade implementation among BBIN countries

Measures	Bangladesh	Bhutan	India	Nepal
Laws and Regulations for Electronic Transactions	2	2	3	2
Recognized certification authority	1	0	3	0
Electronic exchange of custom declaration	1	2	1	0
Electronic exchange of custom of origin	0	0	1	2
Electronic exchange of sanitary and Phyto-sanitary certificate	0	0	2	0
Paperless connection of payment from a documentary letter of credit	1	0	2	0

Source: UN Global Survey on Digital and Sustainable Trade Facilitation, 2021

4. Initiatives for domestic and cross-border paperless trade

There are so far no core policies undertaken by the GoB for the domestic and cross-border paperless trade implementation in Bangladesh. Nonetheless, there are some policies in various national and international documents that are directly or indirectly integrated with domestic and cross-border paperless trade. These are presented in the next sub-sections. These will help the GoB to understand the current status of domestic and cross-border paperless trade implementation and thereby support the formulation of a core policy in this regard.

4.1 Analysis of legal arrangements to implement paperless trade

From the perspective of legal arrangements to implement paperless trade, Bangladesh is still in a nascent condition. The legal approaches are adopted from the existing laws and acts and the meetings from the interim intergovernmental steering group. Some existing basic legal rules are relevant to paperless trade but eventually became out-of-date and incomplete while there has been some evident progress in the implementation of evolving laws and acts. Key findings from the legal arrangements to implement paperless trade for both domestic and cross-border are summarized below:

4.1.1 Legal arrangements for the domestic paperless trade

Electronic transaction, recording, archiving and data retention: The Information & Communication Technology Act (ICT Act) is the foundation for Bangladesh's existing legal framework for electronic transactions and signatures (2006, amended in 2009 and 2013). Following the United Nations Commission on International Trade Law (UNCITRAL) Model Law on E-Commerce (1996), the ICT Act recognizes the functional equivalent of digital records/documents and digital signatures to paper-based records/documents and written signatures. Additionally, the ICT Act refers to technical neutrality and states that the use of a digital signature to authenticate an electronic

record must be performed using a technology-neutral system. The ICT Act also acknowledges the secured storage of electronic records for legal validity.

Electronic customs declarations (i.e., e-bill of entry, e-bill of export) and electronic manifests are currently recognized by the Bangladesh Customs Act (1969, revised in 2019). A wide range of electronic documents, including re-certifications of origin, e-bills of lading, e-waybills, e-invoicing, e-Phyto certificates, and other electronic licenses and permissions are going to be introduced by the Bangladesh NSW and the ASYCUDA World system through individual action plan (Table 6). ICT Act, Customs Act, and other relevant Bangladesh laws and regulations need to recognize electronic records/documents in terms of their legal roles and features as well as their equivalence in terms of functionality to paper-based documents.

Information Security: The Bangladesh Digital Security Act 2018 (DSA 2018) is the country's primary law controlling data security and confidentiality. DSA introduces a new data protection policy for the nation. A prime objective of DSA is to ensure the security, integrity, and availability of Bangladesh's public and private information systems. "Critical information infrastructures" (such as government computer systems and networks) and "personal data" (as defined in section 26 of the Act) are both protected under the DSA. Additionally, Article 43(B) of Bangladesh's Constitution provides some protections for the privacy of citizens' letters and communications. Bangladesh needs to do more to safeguard its citizens' privacy and confidentiality as reflected in the individual action plan¹¹ (Table 6).

Table 6: Individual action plan on paperless trade facilitation regarding electronic transactions and signature laws

Indicative action	Potential key agencies
1. Modernize its statutes and regulations governing or related to electronic transactions	Ministry of Law, Justice and Parliamentary Affairs Supreme Court of Bangladesh
1.1 Revisions of ICT Act	Ministry of Commerce
1.2 Passage of the revised Customs Act 2019	National Board of Revenue, including customs
1.3 Drafting of National Single Window Act	ICT Division, Ministry of Posts, Telecommunications, and Information Technology
1.4 Amendments of Digital Security Act	Ministry of Foreign Affairs
1.5 Amendments of Evidence Act	
1.6 Strengthening IP laws	
1.7 Adoption of Privacy Act	
1.8 Drafting of Electronic Contracts Act	
1.9 Drafting of Data Governance Act	
2. Recognize a range of specific types of e-document as part of the overall development of the cross-border paperless trade environment in Bangladesh	National Board of Revenue, including customs Ministry of Commerce ICT Division Ministry of Law, Justice and Parliamentary Affairs
3. Recognize electronic contracts and consider the inclusion of appropriate rules concerning not	Ministry of Commerce Ministry of Law, Justice and Parliamentary Affairs

¹¹ "Individual Action Plan" template developed by the Working Groups of the Interim Intergovernmental Steering Group on Cross-border Paperless Trade Facilitation. The plan features indicative actions that could be undertaken by Bangladesh to implement the technical and legal recommendations.

only formation and validity but also performance and e- payment obligations, of electronic contracts	National Board of Revenue, including customs Bangladesh Bank
4. ICT Act to have more detailed provisions on data retention and electronic archiving	ICT Division Bangladesh Computer Council Bangladesh National Data Centre
5. ICT Act to include comprehensive provisions on the admissibility of electronic evidence in judicial and administrative/regulatory proceedings	Ministry of Law, Justice and Parliamentary Affairs Supreme Court of Bangladesh Digital Security Agency

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

Electronic Evidence: There are no specific provisions in the Evidence Act of 1872 regarding electronic evidence, although it has been successfully invoked to admit electronic documents and emails. It appears that electronic evidence will be admissible in cybercrime prosecutions under the Digital Security Act (DSA) (2018). According to current Bangladeshi legislation, foreign electronic evidence is not now admissible in any legal or administrative processes.

Single national window system: Currently, the legal framework for the Bangladesh NSW does not exist although NSW operations are addressed in the draft Customs Act (2019). In this context, the NBR has presented parliament with a new Finance Bill (i.e., the amended Customs Act (2019)). Meanwhile, Bangladesh is also developing a National Single Window Law associated with the individual action plan (Table 7).

Table 7: Individual action plan on paperless trade facilitation regarding Single Window laws

Indicative action	Potential Key agencies
1. Provide a legal basis for establishing the nature, functions, and features of a Single Window	National Trade Facilitation Committee Legal working group of National Single Window
2. Establish stronger, more extensive legal protection of commercial confidentiality and privacy 2.1 Amendments to Digital Security Act 2.2. Cross-reference and interlink to IP laws protecting trade secrets 2.3 Adoption of Privacy Act	National Trade Facilitation Committee Ministry of Law, Justice and Parliamentary Affairs Supreme Court of Bangladesh Digital Security Agency

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

4.1.2 Legal arrangements for the cross-border paperless trade

Rather than focusing on cross-border paperless trade, Bangladesh has prioritized the growth of its internal NSW to date, which is understandable. There are, however, some approaches to the cross-border paperless trade in which Bangladesh has participated:

Existing cross-border or regional agreements: Being a member of the Asian Clearing Union (ACU), Bangladesh is having the facilities by SWIFT (Society for Worldwide Interbank Financial Telecommunication) such as electronic transactions of payment. As an LDC member, Bangladesh is also having Generalized System of Preference (GSP) facilities for which traders use the European Union (EU) online GSP registration system for exports via the Bangladesh Export Promotion Bureau (EPB) (UNESCAP, 2019b). Apart from that, South Asian Association for Regional

Cooperation (SAARC) and South Asia Subregional Economic Cooperation (SASEC) participation is providing a mutual consultation.

International standards and guidelines: As a signatory of several international agreements such as TFA, Revised Kyoto Convention (RKC), and other WTO sub-sectoral agreements Bangladesh is entitled to use electronic documents or communicate electronically. Bangladesh's e-commerce legislation is based on precedents set by other countries. The UNCITRAL Model Law on E-Commerce has been incorporated into the ICT Act (1996). The UNCITRAL Model Law on Electronic Transferable Records has also garnered attention (2017). RKC compliance is now being worked on by the government of Bangladesh. For the ASYCUDA World and NSW development, NBR Customs uses the World Customs Organization (WCO) Data Model and UN Layout Key (UNLK). UN/CEFACT recommendations should serve as a guide to Bangladesh's Single Window development, covering the establishment and legal status of such systems, as well as cross-border interoperability.

Initiatives regarding regional agreements and international legal standards, regulations and guidelines that further need to be implemented are summarized as an individual action plan in Table 8.

Table 8: Individual action plan on cross-border paperless trade facilitation

Indicative action	Potential Key agencies
1. Initiate and participate in multilateral and bilateral cross-border paperless trade interoperability initiatives	Ministry of Foreign Affairs Ministry of Commerce National Board of Revenue
2. Proactively consider how to incorporate relevant international legal standards, regulations, and guidelines into its legal frameworks	Ministry of Commerce National Board of Revenue, including customs Ministry of Foreign Affairs ICT Division Ministry of Law, Justice and Parliamentary Affairs
3. Clearly establish the criteria for liability of parties involved in cross-border paperless trade and for the liability of intermediaries in relation to the information and data passing through their systems	ICT Division Digital Security Agency Bangladesh Telecommunication Regulatory Commission Controller of Certifying Authority Bangladesh Computer Council Ministry of Law, Justice and Parliamentary Affairs
4. Ensure that its laws allow electronic payments for all purposes and among all participants in international trade transactions	Bangladesh Bank National Board of Revenue, including customs ICT Division
5. Build awareness and capacity on legal issues of (cross-border) paperless trade for its stakeholders	National Trade Facilitation Committee Ministry of Commerce Bangladesh Computer Council Bangladesh Garments Manufacturers and Exporters Association Bangladesh Federation of Chambers of Commerce and Industries Plus, other private sector stakeholders – freight forwarding and customs brokers' associations,

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

4.2 Technical arrangements to implement paperless trade

The technical arrangements to implement paperless trade are in the preliminary stage. There are specific strategies in place to go forward and a strong resolve to do so.

4.2.1 Technical arrangements for the domestic paperless trade

As stated before, technical readiness for the domestic paperless trade is still on the basic level. Yet there are specific plans for moving forward, backed by two major agencies' clear commitment to doing so. Active participation and leadership in the Framework Agreement and related activities would help Bangladesh improve its paperless trade environment.

Planning for modernized automation: Bangladesh is progressing toward an integrated paperless trade system with a plan of automation (Table 9) to establish the NSW. ASYCUDA is used for data exchange and sharing whereas well-structured security and documents authentication is used by Land Customs Station (LCS). On the other hand, the integration of other agencies and partners, except commercial banks, for electronic data/document interchange and submission is now in the planning stages. A multitude of other paperless commerce systems are either in use or being tested in Bangladesh, including the e-customs system. The Port Electronic Data Interchange (EDI) / Container Terminal Management System (CTMS) has been installed at Chittagong Port, especially for port-related procedures. Only particular data from the customs stations stationed at the port can be sent between this system and e-customs directly. Under the NSW initiative, e-SPS (Electronic Sanitary and Phytosanitary Standards) and e-CO (Electronic Certificate of Origin) are active in the testing and planning phase.

Table 9: Individual action plan on paperless trade facilitation regarding automation

Indicative action	Potential Key agencies
1. Make relevant regulatory agencies ICT-enabled	Technical working groups of National Single Window National Board of Revenue, including customs ICT Division Bangladesh Association of Software & Information Services

Source: UNESCAP (2019a) and KIs from relevant stakeholders

Establishing ICT infrastructure and security system: To facilitate paperless trading systems, network services are not in a reasonable position but will be developed following the individual action plan (Table 10). The government plans for additional development, particularly with the Digital Bangladesh program, are also in place. VPN fibre optics have been built in all major metropolitan areas and broadband connectivity has been supplied at all-important border-crossing sites. Government Secured Intranet (GSI) connects 314 Ministries and agencies, including e-customs where the ICT Act of 2006 and the Digital Security Agency Act (2018) are both in place to ensure network security.

Table 10: Individual action plan on paperless trade facilitation regarding ICT infrastructure

Indicative action	Potential Key agencies
1. Continue enhancing the strategic plan and guidelines on business continuity of ICT systems	National Board of Revenue, including customs Technical working groups of National Single Window Bangladesh Computer Council, ICT Division (Bangladesh Hi-Tech Park Authority) Bangladesh National Data Centre
2. Enhance the users' authentication mechanism and data security measures through the implementation of PKI measures and digital signatures	National Board of Revenue, including customs Technical working groups of National Single Window Controller of Certifying Authority Bangladesh Computer Council ICT Division
3. Ensure coordination and collaboration between the NSW implementing parties and the ICT Agency to consider and maximization of existing networks and infrastructure	National Trade Facilitation Committee and Technical working groups of National Single Window National Board of Revenue, including customs ICT Division

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

Implementation of effective business process: In Bangladesh, business process reengineering (BPR), data harmonization, and standardization have been implemented with caution. At the time, only customs have taken a step ahead by adopting the World Customs Organization (WCO) data model by digital declarations of import and export; manifesting data, and customs duty payments whereas a number of other government entities are still in the development stages (Table 11).

Table 11: Individual action plan on paperless trade facilitation regarding business process re-engineering

Indicative action	Potential Key agencies
1. Carry out business process re-engineering (BPR) in implementing or upgrading ICT systems of trade-related regulatory agencies	National Board of Revenue, including customs Technical working groups of National Single Window ICT Division (a2i)

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

4.2.2 Technical arrangements for the cross-border paperless trade

Cross-border data sharing is the primary function of the ASYCUDA e-customs system. Although NSW is yet to be fully developed, it will serve as the primary point of connectivity. Customs regulates Business Process Re-engineering (BPR) to facilitate cross-border data transfer. Customs has controlled data harmonization and standardization using global standards including the WCO Data Model. While regional business operations for cross-border data interchange are being developed, no specific timetable has been established.

Customs has digitalized Import and Export Declarations; Manifest information; and customs duty payments. Other government stakeholders are still in the planning

stages. Awareness programs and workshops were conducted but in a very confined manner; restricted for users of the e-customs system which was mainly for the main stakeholders involved in the integration of the NSW. In this regard, further initiatives associated with awareness, capacity building and others should be emphasized on basis of individual action plans (Table 12).

Table 12: Awareness, capacity building and others

Indicative action	Potential Key agencies
1. Build awareness and capacity on (cross-border) paperless trade of its stakeholders	Seek support from ESCAP and other international development agencies
2. Set a strategic plan to secure a budget for implementing ICT systems of trade-related regulatory agencies	National Trade Facilitation Committee Ministry of Finance ICT Division (a2i) & Bangladesh Association of Software & Information Services
2.1 Assessing requirements of those agencies	National Trade Facilitation Committee Technical working groups of National Single Window ICT Division (Bangladesh Computer Council)
2.2 Coordinating potential sources of budget and outreaching out to international development agencies	National Trade Facilitation Committee Ministry of Finance Ministry of Foreign Affairs

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

For example, not enough attention has been paid to the types of data and documents that can be sent across countries. Information interchange and Certificate of Origin (CO) information exchange are still being discussed for prospective cross-border data exchanges and business transactions.

Data harmonization and system development for BPR is present in customs but outsourcing by third parties will be required to transfer the knowledge and capacity to Other Government Agencies (OGAs). Authorized Economic Operator (AEO) is in the preliminary stage of implementation. It is being piloted on the Yellow/Green/Red channel. Stakeholders' willingness to accept the changes arising from cross-border data interchange and the availability of funds for any planned cross-border paperless trade program should be assessed.

Initiatives regarding cross-border paperless trade facilitation that further needs to be implemented are summarized as an individual action plan in Table 13.

Table 13: Individual action plan on cross-border paperless trade facilitation

Indicative action	Potential Key agencies
1. Make automation systems of relevant regulatory agencies enabled for both domestic and cross-border paperless trade at the same time	National Board of Revenue, including customs Technical working groups of National Single Window
2. Participate in regional, subregional and/or bilateral initiatives on cross-border paperless trade	National Board of Revenue, including customs Ministry of Commerce Ministry of Foreign Affairs ICT Division
3. Participate in joint inspection and sharing	National Board of Revenue, including

(recognition) of results electronically among relevant regulatory agencies and with trading partner countries	customs Ministry of Commerce
4. Expedite the piloting process to introduce the Authorized Economic Operator programme and conclude mutual recognition agreement with main trading partner countries	National Board of Revenue, including customs Ministry of Commerce Ministry of Foreign Affairs ICT Division (Bangladesh Computer Council)

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

4.3 Institutional arrangements to implement paperless trade

4.3.1 Institutional arrangements for domestic paperless trade

In Bangladesh, the two major agencies-Ministry of Commerce (MoC) and the National Board of Revenue (NBR) are working to implement domestic paperless trade. With several representations from all relevant public and private institutions, a national committee namely National Trade Facilitation Committee (NTFC) is formed where the Minister of Commerce is acting as the head of the committee. Under the NTFC, a technical committee was formed to carry the implementation forward. The NSW is being implemented technically under the supervision of the NBR. The NTFC is formally led by the Minister of Commerce, with the NBR serving as the de facto chair. Bangladesh Customs, which is part of the NBR, is the lead agency for the NSW and is in charge of the Sub Committee.

There are currently no legislative instruments in place to authorize or establish the Bangladesh NSW. However, provisions affecting NSW operations are envisaged in the draft Customs Act (2019). In this connection, the NBR has presented Parliament with a new Finance Bill (i.e., the amended Customs Act (2019)). National Single Window Laws are being drawn up in Bangladesh as well.

4.3.2 Institutional arrangements for cross-border paperless trade

Although Bangladesh's focus on cross-border paperless is relatively less, it is participating in several initiatives related to cross-border paperless trade. Bangladesh, for example, is a party to the South Asian Association for Regional Cooperation (SAARC) Agreement on Mutual Administrative Assistance in Customs Matters, which establishes an institutional framework for cross-border paperless trade discussions among SAARC members. It is a member of the Asian Clearing Union (ACU), which uses SWIFT for bank settlements and all messaging, despite the fact that paying and receiving banks in ACU member states use different technologies. It is also a member of the SASEC (South Asia Sub-Regional Economic Cooperation) Program. Traders use the EU online GSP registration system for shipments via the Bangladesh Export Promotion Bureau under the European Union's Everything But Arms (EBA) program.

Bangladesh is a founding member of the UN Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific. Bangladesh is a signatory or party to a number of international treaties that permit or require the use of electronic documents and communications. As a member of the WTO, Bangladesh is also a signatory to several other international treaties, including the WTO Sanitary and Phytosanitary Agreement, the WTO Customs Valuation Agreement, and the revised Kyoto Convention on Harmonization and Simplification of Customs Practices. Although the GoB is participating in several international conventions and treaties, there is a lack of institutional mechanisms for coordinating stakeholders and governance bodies. Therefore, an indicative action plan is crucial for strengthening institutional and governance bodies as mentioned in the individual action plan (Table 14).

Table 14: Individual action plan on institutional and governance bodies for electronic data exchange in a paperless environment

Indicative action	Potential key agencies
1. Strengthen the institutional mechanisms for coordinating stakeholders of (cross-border) paperless trade	National Trade Facilitation Committee Technical working groups of National Single Window National Board of Revenue, including customs Ministry of Commerce
1.1 Build upon the existing National Trade Facilitation Committee and the technical working groups of National Single Window	National Trade Facilitation Committee Technical working groups of National Single Window National Board of Revenue, including customs
1.2 Enhance representation of private sector stakeholders from the trading community	Bangladesh Garments Manufacturers and Exporters Association Bangladesh Federation of Chambers of Commerce and Industries Plus, other private sector stakeholders – freight forwarding and customs brokers’ associations Bangladesh Association of Software & Information Services
2. Establish a working group that establishes capacity building programmes, awareness campaigns and a communication plan	National Trade Facilitation Committee National Board of Revenue, including customs and private sector associations ICT Division, Ministry of Posts, Telecommunications and Information Technology Bangladesh Association of Software & Information Services

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

5. Bangladesh National Single Window

A National Single Window refers to a customs portal where all the traders of a country can submit their respective trade documents and can access any relevant information related to trading with the help of a single electronic gateway¹². A single window system is utilized to facilitate international trade. Instead of importers and exporters having to complete multiple procedures (e.g., acquiring trade registrations, opening letters of credit, etc.) with customs and other relevant agencies to conduct trade, all the processes can be completed through one medium.

¹² https://www.mof.gov.tl/frc_menu/trade-facilitation/national-single-window/?lang=en

The Government of Bangladesh (GoB) has committed to implementing a National Single Window (NSW) system to improve trade facilitation, including the WTO Trade Facilitation Agreement. In this regard, the main implementation agency NBR, which is part of the Ministry of Finance's internal resource division, and the Ministry of Finance are working hard to reform and modernize customs and other border management agencies. After the system is successfully implemented, traders will be able to submit all import, export, and transit information required by customs and other critical regulatory agencies through a single electronic gateway, rather than submitting the same information to different government agencies multiple times. The component's implementation includes, among other things, competitive procurement of products and services for high and low-value contracts. To process these contracts and carry out other tasks, it is required to develop an adequate support system from both internal and external resources.

The Bangladesh National Single Window (BNSW) project was launched in 2019 as part of the Bangladesh Regional Connectivity Project 1 (BRCP-1), which got \$150 million from the World Bank's International Development Association (IDA). The Bangladesh National Board of Revenue is in charge of this part of the project, which is worth \$74.1 million (NBR). \$67.1 million of this total comes from IDA funds, with the remaining \$7.1 million coming from counterpart funding.

5.1 Agencies integrated with BNSW

Under recommendation 33, the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) advocated the creation of a single portal to improve the efficient exchange of information between trade and government¹³. Bangladesh is progressing towards an integrated paperless trade system with a plan to establish the NSW. In the meantime, the e-customs system, ASYCUDA, is used for data exchange and sharing. Integration of other agencies and partners, except the commercial banks for payment of duty, are currently in the planning stages for electronic data/document exchange and submission. A Memorandum of Understanding (MoU) has been signed between NBR and 50 OGAs until now. The planning of the integration part is still in the developing phase. The major agencies amongst others that will be integrated with BNSW are presented in annexe 2. NBR customs, Bangladesh Bank, Office of the Registrar of Joint Stock Companies and Firms and the Board of Investment are the most important agencies amongst others. However, there is no plan made yet regarding the phase-wise integration.

Initially, Bangladesh has committed to implementing paperless trade systems with two major agencies: the Ministry of Commerce (MoC) and the National Board of Revenue (NBR). In this regard, an implementation committee with representations from all

¹³ https://unece.org/DAM/cefact/recommendations/rec33/rec33_trd352e.pdf

relevant public and private organizations, namely National Trade Facilitation Committee (NTFC), is established where the Minister of Commerce will head the committee.

Accordingly, a technical committee was formed under the NTFC to carry the implementation forward. The technical implementation of the NSW is being done under the supervision of the NBR. The Minister of Commerce officially heads the NTFC, with the NBR as the de facto chair. Bangladesh Customs, which is part of the NBR, is the lead agency for the NSW and is in charge of the Sub Committee. However, NBR and MoC have some particular roles in the case of permitting traders' and agents' e-application. Although MoC still got the manually supported documented system in the application procedure, NBR has been implementing the electronic documented system in their e-application operation (Table 15).

Table 15: Permitting and e-application status of NBR and MoC

Name of the Agencies	Permit Type	E-Application Status
Bangladesh Customs, NBR	1. License, Permit and NoC to export/import Nonionizing radioactive/atomic products	Currently manual supported documented system, but soon electronic application will be applied
	2. Bill of Entry Noting	Electronic Application allowed but hard copy is required
	3. Import General Manifest (IGM)	
	4. Bill of Export	
	5. Assessment Notification	
	6. Duty Payment	
	7. Clearance Notification	
Income Tax Wing, NBR	1. Taxpayer's Identification Number (TIN) for individual	Electronic Application allowed but hard copy is required
	2. Taxpayer's Identification Number (TIN) for Company	
	3. Taxpayer's Identification Number (TIN) for partnership Firm	Manually supported documented system
	4. Tax Clearance Certificate	Electronic Application allowed but hard copy is required

VAT Wing, NBR	1. Business Identification Number (BIN)	
	2. Registration as per the VAT Act	
	3. Exporter Enrolment	
	4. Enrolment as per Tax Turnover	Manually supported documented system
	5. Disposal of the application to remove goods for export purposes	Electronic Application allowed but hard copy is required
Ministry of Commerce	1. Approval for industrial IRC 3rd Adhoc	Manually supported documented system
	2. Approval to export-prohibited export goods	
	3. Approval to export conditional export goods	
	4. Approval to re-export the imported goods	
	5. Recommendation for cash incentive	
	6. Clearance Permit (CP) to release the imported car and Machineries	
	7. Import Permit (IP) to import car and Machineries	

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

5.2 Documents integrated with BNSW:

There are no current legal instruments for the authorization or establishment of the Bangladesh NSW. However, the draft Customs Act (2019) is expected to have provisions for NSW operations in the near future. In this regard, the NBR has also submitted a new Finance Bill (i.e., the revised Customs Act (2019)) to Parliament. Alongside that, Bangladesh is currently formulating a National Single Window Law, which is in the developing phase. In summary, there are no final documents integrated

with BNSW, but the above-mentioned papers and documents will be finalized very soon.

5.3 Processes and current operations of BNSW

The National Board of Revenue (NBR) initiated the BNSW project with nine officials on 11th April 2019, which was expected to be completed by the end of December 2020. Nevertheless, there is no definite timeline to cover all trade transactions in a paperless environment. However, the revised proposed project is expected to be completed by the end of 2023. This would mean that even with the current NSW project completed, it is yet to achieve a totally paperless environment. Currently, three deputy project directors, three assistant project directors, one national procurement consultant, and one financial management specialist are engaged with this project. Under the Bangladesh Regional Connectivity Project-1, NBR is currently analyzing the Information Technology Agreement (ITA) clause with BNSW risk management software.

The NBR founded a Project Implementation Unit (PIU) on December 15, 2020, to build the NSW across the country, with NBR members (customs modernization) as the Project Director and two other First Secretaries from the customs wing members. The procurement focal point will be the first secretary (customs modernization and project management), while the finance management focal point will be the second secretary (customs-international trade and treaties).

The NSW will be linked to NBR customs, Bangladesh Bank, Office of the Registrar of Joint Stock Companies and Firms, banks, the Board of Investment, and other service-providing organizations, according to the PIU plan.

According to the NBR plan, the PIU will be in charge of implementing NSW in the country based on recommendations from the Inter-Ministerial and Transport Facilitation Committee (ITTFC), National Council for Trade and Transport Facilitation (NCTTF), and National Single Window (NSW) Working Group (NSWWG). According to the development project proposal, the team will prepare a development project proposal, purchase, and collect essential resources. It will also complete the project's operational module and implementation.

5.4 Challenges in the implementation of BNSW

While the NSW system is highly beneficial for streamlining Bangladesh's trade processes, some obstacles must be overcome for the actual system to have any tangible effect. Following are some challenges which can be obstacles to the implementation of BNSW-

Distribution of specified roles and responsibilities among agencies: Even though both major government stakeholders have been heavily involved, it is difficult to

determine the roles of each agency. There is a chance that this will lead to some complications among the agencies and be a critical obstacle for implementing BNSW.

Adaptation with newer technologies: It is vital that both customs and other government agencies involved in the trade be modernized and capable of adapting to this newer technology - while customs have made great strides in digitalization over the years, the same cannot be said for other government agencies.

Clearing dependency from the paper-based systems: As there is still a heavy dependence on paper systems, the agencies need to be free from the traditional paper-based work. Transitioning from the conventional approach and its mindset would be challenging to implement.

Reshaping with the modern framework: For the NSW system to be implemented effectively, the processes of these agencies should be brought under a more modern framework - this may prove to be a challenge as, unlike customs and the many funds it has acquired through donations, such agencies may not have enough resources. Coping up with a modernized framework and implementing its effectiveness is another crucial challenge.

Apart from the mentioned challenges, human and organizational resistance to change, islands of non-interoperable information management; digital system development; legislation and legal challenges; security and continuity planning issues are among the many facets of a single-window project that make it challenging to integrate.

6. Challenges in the implementation of paperless trade in Bangladesh

6.1 Legal challenges

Implementation of National Single Window: Any legal law for the formation of NSW is absent. There was no incorporation of any facilitation regarding NSW in the Customs Act 2019. Thus, a clear structure on how the NSW will function is absent. Without any legal law on NSW functioning, legal protection of trade confidentiality and privacy in the Bangladesh electronic environment is a quite challenge. The restrictions of the Digital Security Act 2018 did not address the privacy of online activities of enterprises and individuals properly which could be a security concern even after the implementation of NSW.

Modernizing electronic transactions system: In the current context of adopting paperless trade in Bangladesh, the Information and Communication Technology Act of 2006, as updated in 2009 and 2013, is out of date. The ICT Act lacks extensive data retention and electronic archiving measures, particularly in relation to the State of New

South Wales and the responsibility of government and other data custodians of paperless trade. There are no comprehensive rules governing the admissibility of electronic evidence in legal and administrative/regulatory processes. Related legislation, such as the Customs Act 2019, is not consistent and similarly supportive in achieving functional parity. The Electronic Fund Transfer Act of 2014 has not been amended, necessitating future changes.

Addressing the issue of trade barriers across borders: Supporting global, regional, sub-regional, and bilateral initiatives while actively participating in the Framework Agreement on Facilitating Cross-Border Paperless Trade is a major challenge to be met. Due to inefficient administrative structures, cross-border regional trade from the Chattogram and Mongla ports is hindered by Bangladesh's ability to manage cross-border interoperability in terms of transportation and transit.

Defining liability standards for parties engaging in cross-border paperless trade: NBR and 50 OGAs have signed a Memorandum of Understanding (MoU). In the case of paperless trade implementation, there is a lack of coordination among the parties engaged. There are no laws or rules in place to ensure that those engaging in cross-border paperless trading are held accountable.

6.2 Technical challenges

Assuring the security concern: A whole new technical trade web for an effective paperless trade is a challenge. The Bangladesh government's Digital Bangladesh program of technological development includes the establishment of a virtual private network (VPN) Fiber Optics, deployment of broadband connections to all main border crossing sites, and the integration of e-customs with the Government Secured Intranet (GSI) (UNESCAP, 2019a). However, such advancement of the ICT Act is highly risky in terms of security, which can be a major concern for developing countries like Bangladesh. Under the Digital Security Agency Act of 2018 and ICT act of 2006, data protection, privacy, and data retention in terms of integrity & sharing need strong legal provisions. There is a lack of electronic/digital signatures and the recognition of certifying bodies across the border, which is a threat to the digital trade system, despite the presence of the ASYCUDA system.

Addressing the issue of interoperability: As paperless trade systems need technology-based digitalization using specific ICT, the issue of interoperability arises in terms of several systems interchanging information to regulate the data format, communication protocols, and security issues. There are varied technical interoperability guidelines for different economies, and it creates a problem regarding cross-border paperless trade. Resolving the issue of interoperability by using regular global standards can be a challenge.

Improving the domestic legal environment for paperless trade: By the end of December 2023, NSW will be completed. Despite this, there is no deadline or particular guidance for completing all trade transactions in a paperless environment. As a result, adopting international legal standards/regulations/guidelines in with its legal frameworks in a paperless society will be tough.

Automation of agencies: Despite the fact that some government agencies will be connected to e-customs and the NSW, some other trade-related government agencies currently employ paper-based procedures. Although customs procedures are substantially facilitated by automation, firms cannot maximize operations if trade-related regulatory obligations are handled manually.

Developing ICT infrastructure: The projected Data Centre in Bangladesh is not being built in accordance with the strategic plan and rules. It is difficult to create an environment that can recognize and incorporate all future security and authentication technologies. As a result, it is imperative that electronic data and articles from other countries be recognized and accepted.

Data harmonization and standardization: Data harmonization is partially present in the implementation or upgrade of ICT systems of trade-related regulatory authorities using accessible international standards. If this is accomplished, Bangladesh's paperless trade systems will be able to improve their interoperability and exchange electronic data more easily among themselves and with systems from other nations. This was carried out by NBR (customs) and the WCO Data Model Version 3.7 was chosen.

6.3 Institutional challenges

Effective coordination among different agencies: In international trade processes, synchronization between commercial and public agencies has been a major challenge in Bangladesh, particularly regarding the border authorities. The National Board of Revenue (NBR) and several OGAs have signed Memorandums of Understanding (MOUs) to oversee Bangladesh's integrated paperless commerce system (UNESCAP, 2019a). Harmonization is absent to ensure effective paperless trade. As a result, inconsistent and uncoordinated efforts create a tremendous amount of administrative burden and redundant regulatory issues reducing the efficiency of the trade facilities.

Reluctant trade reforms by the government agencies: The country had zero percentage of change in reducing the documents between the years 2006 to 2014. So, it is a challenge to reduce documents through reforms. A recent scoping study by the Bangladesh Foreign Trade Institute (BFTI) in 2017 mentioned that the Other Governmental Agencies (OGAs) like the office of Chief Controller of Imports and Exports (CCI&E), Bangladesh Civil Aviation Authority (CAAB), Border Guard Bangladesh (BGB), Bangladesh Ministry of Shipping (MoS), Ministry of Industries,

Bangladesh Standards and Testing Institute (BSTI), Bangladesh Land Port Authority (BSBK), Chittagong and Mongla Port Authorities, etc. those who are responsible for trade processing & frameworks are lagging behind in terms of necessary awareness of the related reform programs. Moreover, they are not quite well equipped with the required hardware and software to implement the Trade Facilitation Agreement (TFA) mechanisms, which constitute a significant barrier to productively establishing paperless trade.

Capacity building: Main stakeholders involved in the integration of NSW were the focus of the awareness programmes. However, in the case of cross border exchange, the types of data and documents that can be interchanged did not get sufficient discussion. For export information exchange and Certificate of Origin(CO), it is at the preliminary stage. In the case of BPR, data harmonization and system development, technical capacities are present within customs. But the transfer of this capacity and knowledge to OGAs would require some measures.

7. Framework Agreement on Facilitation of Cross-border Trade in Asia and the Pacific

The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) adopted the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific on 19th May 2016. The framework agreement is a multilateral treaty that has been submitted to the UN Secretary-General for signature and deposit in his office. Between 2012 and 2016, more than 25 countries participated in the agreement's creation and negotiation. The framework agreement aims at promoting cross-border paperless trade by enabling the exchange and mutual recognition of trade-related data and documents in electronic form and facilitating interoperability among national and subregional single windows and other paperless trade systems to make international trade transactions more efficient and transparent while improving regulatory compliance. Under its article 18, the agreement was open for accession to all 53 members of ESCAP from 1st October 2016 to 30th September 2021¹⁴. The Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific entered into force on 20th February 2021¹⁵.

This is the first worldwide agreement on paperless trade signed under the auspices of the United Nations. The agreement includes a single-window system, cross-border paperless trade facilitation, mutual recognition of electronic trade information and records, and international standards for the interchange of e-trade data and documents, as well as related action plans, capacity building, pilot programs, and the

¹⁴ <https://treaties.un.org/doc/Publication/CN/2016/CN.597.2016-Eng.pdf>

¹⁵ https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsq_no=X-20&chapter=10&clang=en

exchange of experience. With this agreement, trade data will be exchanged and recognized in electronic form, single windows and other paperless trade systems will be compatible, and cross-border paperless trade will have a strong legal and regulatory environment and thereby boosting international trade's transparency and efficiency. It is anticipated that this agreement will assist in a more rapid post-COVID-19 economic recovery and development by strengthening cooperation in trade facilitation along with the Belt and Road initiative.

7.1 Bangladesh's approach to the agreement

Bangladesh signed the framework agreement on the facilitation of cross-border paperless trade in Asia and the Pacific on August 29, 2017, as a second country, and ratified it on October 13, 2020, as a fourth country. The agencies (legal and technical aspects) which were associated to ratify the agreement are presented in Table 16. So far, the pact has been accepted or acceded to by Azerbaijan, Bangladesh, China, Iran, and the Philippines. Regional cooperation in this critical area is a priority for these five countries. In 2021, Armenia and Cambodia ratified the treaty, while numerous other ESCAP members are in the process of finalizing their membership. Bangladesh welcomed the agreement's enforcement by announcing a press release on that day and expressing its implications for Bangladesh's economy¹⁶.

Table 16: Individual action plan regarding the ratification of the agreement

Indicative action	Associated key agencies (Legal Aspect)	Associated key agencies (Technical Aspect)
0. Ratify the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific	National Trade Facilitation Committee Legal working group of National Single Window Prime Minister’s Office Ministry of Commerce National Board of Revenue, including customs Ministry of Foreign Affairs Bangladesh Garments Manufacturers and Exporters Association Bangladesh Federation of Chambers of Commerce and Industries Bangladesh Association of Software & Information Services	Ministry of Commerce Ministry of Foreign Affairs

Source: UNESCAP (2019a) and KIIs from relevant stakeholders

7.2 Implications of ratifying the agreement

The ratification of the framework agreement on the facilitation of cross-border trade in Asia and the Pacific will have numerous implications for the country and the economy. Some of these implications of ratifying the agreement from the perspective of agreement provision are listed below :

¹⁶https://mincom.portal.gov.bd/sites/default/files/files/mincom.portal.gov.bd/news/0b24934c_c9c9_4231_b23b_efeae63ea985/Press%20release%20for%20Cross-border%20Paperless%20Trade%201.1.pdf

Allowing for the exchange of trade-related data and documents, as well as mutual recognition and interoperability: In the first provision of the agreement explained that the objective of the framework agreement is to be rich in two ways, Firstly, by facilitating the sharing and mutual identification of actual trade data, and secondly, by facilitating interoperability among national and sub-regional single window systems or other paper restraint systems. It makes it very clear that the treaty is an enabling instrument rather than a prescriptive one. It aims to promote and facilitate the development of paperless trade, but it does not bind countries that become parties to exchange data and documents with any other parties. The Framework Agreement is committed to assisting Bangladesh's regional transition to paperless cross-border trade. As part of the framework agreement, countries of all economic and technological development levels and levels of digitalization are encouraged to participate.

Facilitating technology support for cross-border trade: Another key provision of the framework agreement is article 5 which is supposed to guide all the actions to be implemented by the parties under the treaty. The provision will assist actions undertaken under the framework agreement to promote interoperability between pepperidge trade systems to facilitate cooperation between the public and private sectors and to improve trust in electronically exchanging information between the parties. The agreement's proper implementation will also help to realize the WTO Trade Facilitation Agreement (TFA) and National Single Window (NSW) initiatives. Asia-Pacific countries can boost their economic competitiveness by embracing the cross-border paperless trade pact. At the same time, by implementing the agreement, the countries will be able to successfully handle new difficulties linked with E-Commerce and the digital economy. As for these cases, Bangladesh will get enough assistance to address the emerging challenges with specific directions.

Ensuring the development of action plans: Article 12 of the provision relates to the concrete actions that each country would join the treaty would have to take the comprehensive action plan. Passage 12.2 makes it very clear that the implementation schedule of individual action will be decided by each country based on a self-assessment of its readiness both the collective action plan and the individual action plans are also expected to be living documents and will be regularly updated based on how much progress is made. So, the action plans for implementing paperless trade in Bangladesh will surely be aided by the collective action plans and each country of the treaty.

Enabling inclusive and resilient trade connections: This agreement on paperless trade will enable more smooth, inclusive, and resilient trade connections for Asia and the Pacific, helping to rebuild better, as from articles 6 and 7. Bangladesh can benefit from the Framework Agreement's ability to streamline its trade procedures and reduce expenditure. According to UNESCAP research, if Bangladesh implements the WTO TFA and cross-border paperless trade efforts, it may cut trade costs by 33% if it strives for basic TFA compliance. This translates to an annual cost savings of almost USD 0.7 billion in trade transactions.

Achieving gradual capacity building: Article 14 is fully dedicated to capacity building and requests technical assistance from least developed and landlocked developing countries. As countries who have demonstrated high-level political commitment to paperless trade by joining the framework agreement will be given comprehensive support, Bangladesh's gradual approach to those targets will be facilitated.

Better preparation for LDC graduation and further progress: Framework agreement technical support and collaboration arrangements can support Bangladesh in better preparing for graduation from the Least Developed Country (LDC) category, minimizing the negative consequences of losing the preferential market. Cross-border paperless trade would assist the Honourable Prime Minister's vision of turning the country into Digital Bangladesh and achieving the status of a high-income country (Developed Bangladesh) by 2041. Bangladesh may also achieve further progress in the "Ease of Doing Business Index" by implementing the Cross-Border Paperless Trade Agreement and attracting more Foreign Direct Investment (FDI).

8. Way forward

The paperless trade facilitation initiative aims to speed up the implementation of digital trade facilitation measures for trade and development in developing nations where bureaucratic red tape slows commerce, raises costs, and lowers product quality. However, Bangladesh in this case has a long way to go. With the many government agencies not cooperating properly it is difficult to go forward. Many agencies are still highly dependent on manual trade documents. There is a lack of proper digital laws which will not make the implementation of paperless trade any easier. The lack of synchronization of the existing laws also makes the goal to achieve it difficult. But effective implementation of paperless trade and the creation of the BNSW will save valuable time, progressing towards an easier trading system. Bangladesh can take full advantage of it as it is expected to graduate from Least Developed Country (LDC) to Developing Country (DC) by 2026. In Bangladesh, paperless trade is a long, sluggish, and difficult process that requires the right legislative support as well as the right strategies and logistics. When both government and business sectors are involved, the transformation can only be improved. Various problems and dangers that arise throughout the transition may slow the pace of execution or even threaten to derail it entirely. Based on the challenges of domestic and cross-border paperless trade implementation in Bangladesh, the study suggests the following sets of policies from different aspects with recommendations to be adopted with priority:

8.1 Recommendations based on the assessment of technical actions

Developing national single window and other paperless trade systems: Paperless trade infrastructures that are corresponding within and across borders

should be progressively developed in Bangladesh, including strengthening national technical capability in this area, formulating a time-efficient plan, and conducting pilot interactions of specified files and resources. Bangladesh is urged to take an active role in activities relating to the Framework Agreement for the Promotion of Cross-Border Paperless Trade in Asia and the Pacific. The Framework Agreement will help Bangladesh eliminate technical gaps in cross-border paperless trade and expedite its globalization.

Enhancing the automation level: To participate in paperless trade, Bangladesh must quickly digitize its regulatory bodies. Aside from e-customs and the National Single Window, certain government institutions involved in trade still process regulatory procedures such as trade applications on paper. Even if customs procedures are automated, businesses cannot improve their operations if they must rely on human processes to meet other trade-related regulatory requirements.

Improving the ICT based infrastructure: To maintain service continuity and sustainability of ICT systems (including paperless trade systems), Bangladesh should work to promote a comprehensive strategy and regulations on the business continuity of ICT systems (including disaster recovery plans). Modernization of existing networks and infrastructure such as GSI, which now connects 314 Ministries and agencies, should also be prioritized. Another excellent concept to use in paperless trade to make things more secure and efficient is blockchain technology.

Streamlining cross-border data exchange: The cooperation of major regulatory bodies in regional and bilateral initiatives on cross-border paperless trade is crucial for cross-border facilitation. Accelerate the AEO program piloting process with trading partners and execute mutual recognition agreements with major trading partners to increase trust in Bangladesh merchants and facilitate cross-border trade.

8.2 Recommendations based on the assessment of legal support

Modernizing status and regulations related to electronic transactions: The Information & Communication Technology Act of 2006, as revised in 2009 and 2013, should be further modernized. To ensure that electronic records and digital signatures are functionally equivalent, they need to be precisely and unequivocally defined. For achieving functional equivalency, related legislation, such as the Customs Act, should also be coherent and equally supporting. More comprehensive data retention and electronic archiving provisions should be included in the ICT Act, particularly in relation to NSW, and the obligations of government and other data custodians of paperless trade electronic records and other information, such as government data centres, should be spelt out. Furthermore, substantial provisions on the admissibility of electronic evidence in legal and administrative /regulatory processes should be included.

Implementation of paperless trade & single national window law: The nature, functions, and characteristics of the Bangladesh NSW should be explicitly defined by one or more national laws. The NTFC and its subcommittees should be described in full to ensure greater, more comprehensive legal protection of commercial confidentiality and privacy in the Bangladesh electronic environment. Due to the present limits of the Digital Security Law, a Privacy Act that particularly addresses the online activities of enterprises and individuals is also recommended.

Comprehension of extensive rules on the admissibility of electronic evidence: The ICT Act should include substantial provisions on evidence admissibility in legal and administrative proceedings. Specific laws for acquiring and manufacturing electronic evidence, as well as directing electronic evidence disclosure, should be clarified. Authentication and evidentiary laws should allow foreign electronic evidence to be acceptable in court. Digital Security Act and Evidence Act should be modified so that electronic evidence can be admissible.

8.3 Recommendations based on the assessment of institutional support

Strengthening institutional and governance bodies and enhancing capacity building: Bangladesh should strengthen the institutional frameworks for coordinating parties in cross-border paperless trade, as well as capacity-building programs, awareness-building campaigns, and an effective communication plan, based on the NTFC and NSW technical working groups that are already in place, to ensure that all stakeholders are aware of the benefits and objectives of paperless trade. Private sector stakeholders from trading communities should also be represented to ensure they are well-informed and in line with the overall direction and policies of the committee.

Raising awareness among different stakeholders: The Bangladesh government should initiate awareness-raising programs related to paperless trade among its many players. There are crucial responsibilities to play in such capacity-building and awareness-raising programs for chambers of commerce, think tanks, and important trade groups like the Bangladesh Garments Manufacturers and Exporters Association (BGMEA). Bangladesh may seek UN and other foreign development agencies' assistance in organizing and implementing such coordinated awareness-raising programs. Political parties, community organizations, researchers, academics, and other essential stakeholders should participate in consultation meetings and debate programs to ensure the long-term viability of paperless commerce initiatives.

References

- BFTI. (2017). *The Scoping Study on Paperless Trade Reform in Bangladesh*. Bangladesh Foreign Trade Institute: Dhaka, Bangladesh.
- Duval, Y., & Mengjing, K. (2017). *Digital Trade Facilitation: Paperless Trade in Regional*. ADBI Working Paper 747. Tokyo: Asian Development Bank Institute. Retrieved from <https://www.adb.org/publications/digital-trade-facilitation-paperless-trade-regional-trade-agreements>
- ESCAP (2017). *Digital Trade Facilitation in Asia and the Pacific*. Studies in Trade, Investment and Innovation, No. 87. Available from <https://www.unescap.org/publications/digital-trade-facilitation-asia-and-pacific-studiestrade-investment-and-innovation-87>.
- ESCAP (2021). *Digital and Sustainable Trade Facilitation in Asia and the Pacific 2021*. Economic and Social Commission for Asia and the Pacific (ESCAP), United Nations.
- GoB (2012). *Perspective Plan of Bangladesh 2010-2021: Making Vision 2021 a Reality*. General Economics Division, Planning Commission, Government of the People's Republic of Bangladesh.
- Ha, S. H., & Lim, S. W. (2014). *The Progress of Paperless Trade in Asia and the Pacific: Enabling International Supply Chain Integration*. Asian Development Bank.
- UNESCAP (2016). *Framework Agreement on Facilitation of Cross-border Trade in Asia and the Pacific*. Retrieved from https://treaties.un.org/doc/Treaties/2016/05/20160519%2012-16%20PM/Ch_X-20.pdf
- UNESCAP (2019a). *Readiness Assessment for cross-Border Paperless Trade*: Bangladesh. Bangkok: United Nations Publications.
- UNESCAP (2019b). *How Trade Facilitation Could Support Bangladesh: Beyond LDC Graduation*. Workshop on SDGs and Sustainable LDC Graduation of Bangladesh 24 September 2019, UNCC, Bangkok, Thailand.
- WEF (2017). *White Paper on Paperless Trade*. World Economic Forum. Retrieved from https://unece.org/fileadmin/DAM/cefact/GuidanceMaterials/WhitePapers/WP-PaperlessTrade_Eng.pdf
- WTO (2015). *Benefits of the WTO's Trade Facilitation Agreement*. Available at: https://www.wto.org/english/thewto_e/acc_e/TJKDDGSHARKTICTFASTATEMENT.pdf

Annex 1: List of the name of interviewed stakeholders

Table A.1.1: List of the name of interviewed stakeholders

Sl. No.	Name	Designation	Organization
1	M. Sofiuzzaman	Deputy Project Director	National Board of Revenue (NBR)
2	Samarjit Das	Assistant Project Director	National Board of Revenue (NBR)
3	Md. Mokaddem Ahamed	Deputy Director	Bangladesh Bank
4	Md. Munir Chowdhury	Former DG, WTO Cell	Ministry of Commerce
5	Md. Nobir Uddin	Senior System Analyst	ICT Division
6	Mohammad Ariful Islam	Joint Commissioner	Dhaka Custom House
7	Mohammad Zafor Ullah	Managing Director	Orbit Traders
8	Obaidul Huq Alamgir	Managing Director	Gulf Ventures
9	Joyrul Abedin Rana	Managing Partner	Prompt Trading

Annex 2: List of the name of the agencies that will be integrated with NSW

Table A.2.1: List of the name of the agencies that will be integrated with NSW

Sl. No.	Name of Agencies
1	Bangladesh Customs, NBR
2	Bangladesh Atomic Energy Commission (BAEC)
3	Bangladesh Bank
4	Bangladesh Computer Council (BCC)
5	Bangladesh Economic Zones Authority
6	Bangladesh Election Commission
7	Bangladesh Export Processing Zones Authority (BEPZA)
8	Bangladesh Garments Manufacturers Association (BGMEA)
9	Bangladesh Inland Water Transport Authority (BIWTA)
10	Bangladesh Investment Development Authority (BIDA)
11	Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA)
12	Bangladesh Land Port Authority

13	Bangladesh National Authority for Chemical Weapons Convention (BNACWC)
14	Bangladesh Navy
15	Bangladesh Standards and Testing Institution (BSTI)
16	Bangladesh Telecommunication Division
17	Chief Controller of Imports & Exports (CCI & E)
18	Chittagong Port Authority
19	Civil Aviation Authority of Bangladesh
20	Department of Environment
21	Department of Fisheries
22	Department of Livestock (DLS)
23	Directorate General of Drug Administration
24	Export Promotion Bureau (EPB)
25	Information and Communication Technology Division
26	Ministry of Fisheries and Livestock
27	Ministry of Agriculture
28	Ministry of Civil Aviation and Tourism
29	Ministry of Commerce
30	Ministry of Health and Family Welfare
31	Ministry of Industries
32	Ministry of Shipping
33	Mongla Port Authority
34	Office of the Controller of Accounts (CGA)
35	Office of the Controller of Imports & Exports
36	Payra Port Authority
37	Plant Quarantine Wing of Department of Agricultural Extension
38	Posts and Telecommunications Division
39	Registrar of Joint Stock Companies and Firms
40	Sonali Bank Limited

Source: *Readiness Assessment of Paperless Trade in Bangladesh in 2019*

Annex 3: Documents required for Bangladesh's international trade and their paperless status

Table A.3.1: Documents required for exporting

S.N.	Trade Document Type	Paper/paperless/Partially paperless
1	Sales Contact/Letter of Credit	Paper
2	Commercial Invoice	Paper

3	Packing List	Paper
4	Exp. (Online export monitoring system) from Commercial Bank.	Paper
5	Certificate of Origin	Paper
6	GSP/SAPTA/APTA/KPT Certificate	Paper
7	Health / Sanitary & phyto Sanitary Certificate	Paper
8	Bill of Export/Shipping Bill.	Paperless
9	Airway Bill/Bill of Lading.	Paper
10	Insurance Policy.	Paperless
11	Bill of Exchange.	Paper
12	Others (If required)	N/A

Source: Documents type compiled from Bangladesh Trade Portal

Table A.3.2: Documents required for importing

S.N.	Trade Document Type	Paper/Paperless/Partially paperless
1	Import Registration certificate from Online Licensing Module (OLM)	Partially paperless
2	Import license from the Chief controller of import and export (CCI&E)	Partially paperless
3	Sanitary and Phytosanitary Requirements for certain goods from the <i>Ministry</i> specific department	Partially paperless
4	Technical certificate for certain goods from the Ministry of Science and Technology (BSTI, BCSIR, BAEC)	Partially paperless
5	A commercial invoice or contract of sale document from the exporters	Paper
6	Transport documents such as Bill of Lading or Air Waybill	Partially paperless
7	Packing List	Paper
8	Certificate of Origin sent from exporters to importers	Paper

9	Other import licenses or permits from other ministries depending on the type of goods imported	Paper
10	Duty payment clearance certificate from the Bank	Paper
12	Others (If required) -Shipping Manifest -Brief LC	Paperless

Source: Documents type compiled from Bangladesh Trade Portal