World Customs Organization and global trade: imprints and future paradigms

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Abstract

This paper traces the evolution of customs cooperation as an imperative of global trade, and the origins and achievements of the World Customs Organization (WCO). The birth of the WCO marked the first attempt at multilateral customs cooperation on a global scale, and this paper examines the challenges of customs cooperation since inception as well as emerging paradigms. After briefly tracing the early limited attempts to foster customs cooperation among sovereign states, this paper analyses the indelible imprints made by the sustained efforts of the WCO to simplify and harmonize customs procedures to facilitate international trade. The authors use inductive research methodology and link analysis to examine the impact of the WCO in developing standards and enhancing compliance for the ease of doing business in member countries in general and in India in particular. Our results suggest that there is a positive and robust effect of the WCO’s instruments and programs in harnessing technology; in developing new paradigms and promoting their adoption by the customs and trade community; and in promoting communication and connectivity among member countries and peer learning. A detailed analysis on supply chain security as a contributing factor in achieving the vision of a globally networked Customs for a seamless flow of legitimate international trade is also presented. The paper argues that, in times of crisis, such as COVID-19 or any disaster of international scale, the need for a strengthened globally networked Customs becomes crucial. Under the future paradigms, a citizen-centric approach for sustainability of people, planet and prosperity is also addressed.

Introduction

‘What the bazaar economy lacks is not elbow room but organization, not freedom but form.’ – Clifford Geertz, 1963.

Customs, as the name suggests, is antiquarian in origin. Given the relative permanence of terminology and sovereign legal foundations of Customs throughout its history, is the institutionalisation of customs cooperation a new factor in the expansion of global trade in a contemporary era?

Trade, tariff and customs cooperation from the beginning

The origin of customs duties is as old as the origin of cross-border trade—across the gates of the walled settlements in early history when sovereignty was at the incipient stage. The literary meaning of the word ‘Customs’ would imply, among other things, that a practice would become customary only after establishing harmonious relationships among the stakeholders. Since the beginning of cross-border trade in ancient times, harmonisation of customs procedures seems to have evolved by peer learning
necessitated by the need for ease of doing business (Ramdass & Subramanian, 2018). Not only was the tariff and the method of collection contemplated in many ancient codes of law, historic evidence indicates that ancient customs systems attempted to study the tariff regime of their trading partners also.

A fourth-century BCE Indian text, *Arthashastra*, links Customs and tariff thus: ‘In accordance with the customs of countries or of communities, the rate of duties shall be fixed on commodities, old and new.’ The Palmyra Customs tariff of Syria 137 CE links Customs and tariff thus: ‘pine cones and other similar goods imported by foreign merchants for the purpose of trade shall be taxed as dry goods, as is the practice in other towns’ (Asakura, 2003, p. 71). Further, as per *Arthashastra*, customs duty in foreign countries is to be reckoned as a factor by the superintendent of trade for deciding markets for the sale of the King’s goods. The study of tariff requires knowledge of the system of classification and valuation of commodities. In addition, a conceptual study of the ancient customs system in the East and the West would show the striking parallels that existed between them, especially in the grouping together of a number of similar taxes under a general heading, suggesting harmonisation and a well laid-out composite taxation regime for regulating both internal and external trade: ‘Śulka’ in ancient India and ‘Portorium’ in ancient Rome for instance (National Academy of Customs Indirect Taxes and Narcotics (NACIN), 2018).

Customs cooperation from the ancient to medieval times was operationalised through the exchange of tributary missions, recognition of letters of permission for transit, and the principle of commercial extra-territoriality. The primary factor behind the ancient and medieval tributary exchanges between long-distance trading partners appears to be not strategic, but to secure customs concessions and market access. The *Lex Portorii Asiae* (Customs Law of Asia) concerned with the customs dues of the Roman province of Asia from 75 BCE to 62 CE contains a provision for the exemption from import duties for conveyances in the course of transit (Cottier et al., 2008). The *Lex* also contains a provision for import duty exemptions in Pergamene harbour in light of what Augustus Caesar ‘decided and conceded or replied to the ambassadors’ (Cottier et al., 2008). Under the commercial extra-territoriality system, foreign merchants or a merchant guild in the native soil acted as a medium of trade between the host country and their home country and customs revenue was paid on behalf of the guild to the native state.

The Muziris papyrus (*Papyrus Vindobonensis G 40822*)—a second-century CE parchment in Greek, now housed in the Vienna Museum—is the surviving evidence for a trade agreement between the merchants of the host country and home country covering a transnational origin-to-destination supply chain secured by seals and validated by customs payment. The central role of ancient terracotta seal impressions was to secure, identify and track consignments along the supply chain. One would wonder whether the ancient clay tags serve as archaeological evidence for the networked nature of Customs and refute the notion of Customs as a gatekeeper at a single node in the supply chain (NACIN, 2018).

It is curious to know that valuation often caused headaches for both Customs and the traders even in the pre-modern period. The Portuguese observer Tom Pires, in his *Suma Oriental* (1512–1515 CE) records at Malacca in Southeast Asia, the King’s common practice of calling together a group of 10 merchants belonging to different nationalities settled in the port town for customs valuation of the goods that had arrived in large ships (Pires, p. 273). As it is seen, Customs and tariff were intertwined throughout history and customs cooperation between sovereign agencies was localised, transient and volatile.

With the industrial revolution and the consequent search for markets, customs cooperation started to grow methodically. It saw the emergence of treaties and customs unions, such as the German customs union, the *Zollverein*. However, it appears that no distinction was made between Customs and tariff until the end of the nineteenth century; Customs is considered to be synonymous with tariff metonymically. As shown by Pahre (2007), the politics of trade cooperation during 1815–1914 CE centred around the ‘agreeable customs’. While tariff was the recurring theme of trade agreements in the early modern period, themes relating to the safety of supply chain by the suppression of non-state actors could also be
found. The Bhavnagar-Surat Customs Cooperation Treaty 1739 (Ramdass & Subramanian, 2018) and the Treaty of Tianjin, 1858 (van de Ven, 2014), contained provisions for the suppression of piracy along the Saurashtra Coast and China Coast respectively, with the cost to be met from customs revenue.

The limits to market integration were transformed into barriers under the guise of protectionism at the start of the twentieth century. The differentiation of customs rates and customs procedures as tariff and non-tariff components began to emerge in the context of negotiations for international economic cooperation. The origin and parallel evolution of the General Agreement on Tariffs and Trade (GATT)/WTO and Customs Cooperation Council (CCC)/WCO and their contributions to the expansion of cross-border trade in the contemporary era could well be linked to that differentiation.

In the absence of a specific intergovernmental organisation, the efforts towards evolving efficient customs procedures at the international level ended only in talks as they could not scale the walls of state sovereignty. The League of Nations started the negotiations on uniform customs nomenclature, the coding and classification of the tariff items as a first step, but it could produce only a draft nomenclature before the outbreak of World War II.

In the aftermath of World War II, the Committee for European Economic Co-operation was established in 1947 to contribute towards post-war recovery in Europe. While considering trade as an engine for economic development, it envisaged customs cooperation as an imperative for trade. This led to the setting up of a Customs Committee in 1948 in furtherance of its objective of establishing a Customs Union for Europe based on the GATT principles, which entered into force the same year. GATT has a number of provisions closely relating to customs and tariffs, underscoring the importance of customs cooperation in trade issues (Asakura, 2003, p. 280).

The need for institutionalising customs cooperation led to the Convention establishing a CCC in 1950. Accordingly, the CCC was founded in Brussels in 1952. The spirit of the Convention, as enunciated in its preamble, is to promote cooperation between governments in customs matters in the interests of international trade, once again underscoring the importance of customs cooperation in trade issues.

The concept of a global organisation for the sovereign agency of nations (customs) was entirely new. The founding members of the Convention were all European governments as they already were part of the grand dream of establishing a customs union and the spirit of the Convention is well served by the provision for admission of new members and even non-member governments in the capacity of observers, which helped to extend its influence beyond Europe quickly.

The post–World War II global trade system also saw the dismantling of the colonial yoke and the emergence of free world economies. The initial work of the CCC, especially relating to Brussels Definition of Value (1953) and Brussels Tariff Nomenclature (1959), attracted the attention of the world and its membership grew. With the growth in membership, the relevance of the CCC grew, and its approaches and activities were widely accepted by the trading nations and international forums. It now covered all six regions in the world. The council for securing harmony and uniformity in customs techniques has since expanded through its technicality, fraternity and professionalism into the voice of international Customs family sans pareil. It adopted the working name World Customs Organization (WCO) in 1994. In terms of the number of members, it is the second largest of the intergovernmental organisations (183 contracting parties), next only to the United Nations System Organisations (Asakura, 2003, p. 290).

The major achievement of the CCC was incorporating a global paradigm in the customs administrations and in building their capacity to deliver results by developing instruments and standards, policy dialogue and information exchange. The contemporary challenge to customs cooperation is the ramifications of the supply chain deep into the domestic markets on both sides of the border, requiring synergistic efforts of Customs among themselves and with other enforcement agencies as well as business stakeholders to promote legitimate trade.
Whether the vast vacant niche for global customs cooperation was occupied or created by the CCC is an interesting research question. The imprint of the WCO is felt across the world in orienting customs administrations, benchmarking, providing additional tools, enhancing partnerships, promoting academic and research agenda, capacity building, and replicating best practices and communicating the results. The cross-border customs infrastructure supporting global trade, as we see today, is the result of collaborative efforts steered by the CCC for seven decades. Riggs and Mykletun (1979) concluded that the CCC was among the few international agencies that evoked consistent and enthusiastic appraisals as well as respect for the things it did, especially in developing a harmonised system of nomenclature for the classification of goods and valuation by the customs administrations.

The success of the CCC is attributable to its responsibility and capability for accelerating cooperation between customs administrations, its fine balancing between trade facilitation and enforcement of trade laws, and its futuristic orientation. Its success is imperative for customs administrations, global trade, and humanity at large, as it is the only intergovernmental organisation dealing with multilateral customs cooperation at a global level.

The base for the ease of doing business

Historically, Customs is the first official institution that greets foreign merchants as they enter sovereign borders. Borders divide, Customs connects (WCO Vision Statement). Close relationships exist between trade cooperation and customs cooperation—the two are arguably cause and effect and are evolutionarily related. The technical grounds for multilateral trade cooperation depend much on the groundwork done by the CCC, as Customs cooperation is a prelude for trade liberalisation and expansion. The succession of globalisation is pioneered by multilateral trade negotiations through the development of global conventions. While legislations on Customs are under the sovereign authority of member countries, they now echo the spirit of these international instruments and the role of the CCC in bringing about the transformational change establishing the base for the ease of doing business highlighted here.

Harmonisation of tariff nomenclature

Tariff nomenclature—the coding and classification of commodities for the determination of customs duty—was a major area of discussion at the beginning of multilateral trade negotiations relating to the removal of non-tariff barriers. Since different states framed their tariffs with different objectives, it was difficult to arrive at a common detailed nomenclature that would meet the requirements of all. In 1929, a draft framework for customs tariff nomenclature was prepared by a sub-committee of Experts of the Economic Committee of the League of Nations. The draft Uniform Customs Nomenclature was approved by the Assembly in 1931 and sent in November 1932 to governments for their observations. It was generally agreed that any steps towards uniformity of nomenclature would tend to facilitate international trade and should, therefore, where practicable, be supported. However, in view of the various observations and amendments proposed by countries for drawing up a final text, it was hoped that a time would come in the near future to conclude an international agreement for putting into force a new system of customs nomenclature. Analysis of the draft Uniform Customs Nomenclature showed that the criticisms of over-elaboration and little flexibility in it were caused by the desire to bring uniformity into customs nomenclature. The paradigm shift was brought by the CCC by envisaging harmonisation rather than unification of tariff nomenclature. It was a time when such common nomenclature was called by different names. Obviously, the development of a harmonised system of nomenclature (HSN) by the CCC was closely linked to the GATT multilateral trade negotiations in Geneva.

It took 17 years (1970–1987) for the CCC to bring into force the Harmonized Commodity Description and Coding System by modernisation of the Brussels Tariff Nomenclature (BTN) in conformity with the latest industrial and commercial requirements. The long gestation period produced a dynamic living
document, the pedigree of which performs different roles according to the needs of the time. There is mention now of the Harmonized System (HS) supporting environmental control measures on goods of concern at the border. The 2022 edition of the HS will include specific HS codes for the most commonly traded HFCs and mixtures to help Customs in the fight against climate change (WCO, 2020). With 159 contracting parties, the HS Convention made effective inroads into customs legislations and, with its application across 212 countries, territories and customs or economic unions, it serves as a mutually beneficial instrument for the customs and trade community and is the primary factor in ensuring a seamless flow of trade across the borders.

Valuation

The development of an international customs valuation system has seen the long history of cooperation between the WCO and the WTO.\textsuperscript{11} The administration of \textit{ad valorem} tariffs primarily involved questions of customs technique and the CCC has been dealing with such questions at an international level since its inception.\textsuperscript{12} Determining a real value is prescribed in the GATT Article VII (WCO, 2010). However, differences in the interpretation of GATT provisions led to changes in the system of valuation across nations constituting non-tariff barriers (NTBs).\textsuperscript{13}

The free on board (FOB)–cost, insurance and freight (CIF) issue was one of the unresolved differences in valuation although both bases are allowable under Article VII of GATT. Against this backdrop, the Tokyo Round GATT Multilateral Trade Negotiations (1973–1979) took place, which finally led to a new GATT Code on Customs Valuation that came into force in 1981 (De Pagter & Van Raan, 1981). De Pagter and Van Raan (1981, p. v) wrote:

As a result of the new agreement a uniform system for the valuation of goods for customs purposes will be used for the first time in history of international trade by the most important trading nations.

Article 18 of the Agreement on implementation of Article VII of GATT, 1994 provides for a Technical Committee on Customs Valuation under the auspices of the CCC. This committee represents the first major joint operational effort between GATT and CCC, representing the interrelation between Customs and trade.\textsuperscript{14} This committee gave technical assistance to the developing nations and interpretation on specific technical problems arising in the administration of the customs valuation system of members as per the provisions of the GATT Agreement. To ensure an internationally uniform application, this committee has also undertaken the task of publishing Explanatory Notes to the Code (WCO, n.d.b).

The WCO, over the years, has organised workshops on the provisions of the WTO Customs Valuation Agreement, especially for the capacity building of customs officials in the developing and least developed countries on technical topics such as related party transactions, licence fees and royalties. Nowadays, such workshops align their focus on trade facilitation themes, such as valuation in the context of advance rulings and post-clearance audit.\textsuperscript{15}

Rules of origin

In the late 1980s, due to the proliferation of preferential trading arrangements, quota restrictions and anti-dumping issues, customs administrations faced challenges regarding the origin of consignments. The paperwork requirements on certificates of origin occasionally caused delay in the clearance of incoming or outgoing shipments. There was a general lack of consistency between customs administrations on the application of rules of origin, especially in cases of non-preferential origin. In order to overcome this barrier, the Agreement on Rules of Origin in 1994 was incorporated in the Uruguay Round of GATT. The Agreement on Rules of Origin is the collaborative result of the WTO Committee on Rules of Origin (CRO) and the WCO Technical Committee on Rules of Origin (TCRO). Now it serves as the global standard for trade policy, trade statistics and general macroeconomic analysis (WCO, n.d.a).
Customs procedures and trade facilitation

In the CCC’s efforts towards trade facilitation, two strands appear in tandem: one relates to technical cooperation and the other to operational issues. Technical cooperation is a classic example of cooperation amongst customs administrations and solutions to the basic challenges in the application of customs techniques, such as classification, valuation and origin, are arrived through the constitution of technical committees, policy dialogues and drafting of conventions involving customs experts. Although operational issues could be simplistically coalesced as trade facilitation through the simplification and harmonisation of customs procedures, customs cooperation in operational issues, such as supply chain security, the single window concept and coordinated border management, require not only Customs-to-Customs partnerships but also partnerships with other agencies at national and global levels. The significance of the new instruments and tools developed by the WCO, such as Revised Kyoto Convention, SAFE Framework of Standards, and Time Release Study, must be seen in this context.

The following analysis links the quantum of work done by the WCO towards trade facilitation starting from the watershed year 1994.16

After settling the basic challenges in customs techniques, the CCC started the work of revising its main trade facilitation convention, the Kyoto Convention, in 1995. The Revised Kyoto Convention (RKC), which entered into force in 2006, is concerned about simplification and harmonisation of customs procedures for faster clearance. It is aimed at improving customs competitiveness, quality of service and consumer satisfaction. It may be noted that Section I of the WTO Trade Facilitation Agreement, which entered into force in 2017, contains provisions for expediting the movement, release and clearance of goods, including goods in transit. Two new paradigms brought by the RKC—risk management systems and post-clearance audit—now serve as the norms for balancing facilitation and enforcement and these paradigms changed the way Customs functions. The RKC recommended maximum use of information technology in customs operations, which brought about a positive turn-around in clearance times. Technology has enabled reduced paperwork and human interface and has enabled faceless assessment. The role of the WCO in harnessing technology for faster clearance is further exemplified by the adoption of RFID e-Seals, non-intrusive scanning methods and data modules for risk management by the members.

A plethora of certificates are replaced by the system of declaration. Export and import documentation and customs clearance forms are standardised across the global supply chain. Unreasonable delays in formal customs clearance and excessive penalties for errors in customs documentation are greatly reduced by the application of RKC standards. Certainty and predictability are added to the customs operations by the application of general rules, such as advance rulings, as enunciated in RKC. The tools promoted by the WCO, especially the single window concept and Authorized Economic Operator (AEO) program have wider ramifications in the business atmosphere and other line departments of Customs. The capacity building programs of the WCO now also cover the business and trading community. Customs is now empowered to make partnerships with trade through the program. Pre-arrival declaration systems and AEOs play an important role in getting advance information and reducing delays. The WCO now has a package of tools for each aspect of trade facilitation through Customs. It is not an exaggeration that the customs administrations would take a lead role in facilitating trade using these tools.

The work of the WCO towards trade facilitation is held in high regard by both developed and developing countries. The WCO is counted as one among the key forums shaping the future of the global economy.17 The advisory opinions of the WCO are consulted by courts in member countries to decide issues relating to customs techniques, for example, to determine the meaning of a tariff provision (Malkawi, 2019, p. 311).
Two paradigms are identified in ensuring compliance to trade facilitation measures: one is by encouraging compliance and the other is by enforcing it. Both these paradigms require internationally accepted standards and instruments for evaluation of compliance.

While analysing the responses from customs administrations regarding the causes for customs modernisation, two usual answers would be encountered: one is increase in global trade and another is to meet the WCO standards. The best part of the functioning of WCO is ‘encouraging compliance by support’, in addition to development of standards and instruments. The WCO provides support to member countries by focusing on their practical needs and then developing tailor-made solutions through various tools to ensure compliance. This is illustrated with the following case study.

The WCO Revenue Package program aims to assist member administrations in fair and efficient customs revenue collection. While commencing work on the action plan of the Revenue Package program, the challenge faced by many countries in the application of the WTO Valuation Agreement was identified as the major issue impinging revenue collection and members requested further assistance in this area. Accordingly, the WCO focused a study on best practices in valuation control programs in select member countries, including a study of Indian Customs’ valuation database system, as such databases may be of use as a risk assessment tool (WCO, 2011). The best practices are then actively promoted as part of the Revenue Package program so that member customs administrations could effectively function both as revenue collectors and trade facilitators.

By motivating economies for higher rankings, the Ease of Doing Business (EODB) index enforces voluntary compliance to trade facilitation instruments. Okazaki (2018) finds that all of the trading across borders indicators in World Bank Groups’ EODB relate to customs procedures (Okazaki, 2018). While illustrating the efforts of countries to score higher in the EODB index, he highlights the efforts of countries towards implementing the standards, tools and recommendations long advocated by the WCO. For example, in the case of India, he uses the example of the implementation of the single window interface to facilitate trade and reduce the number of mandatory documents for import and export. Another way of enforcing compliance is through dispute settlement mechanisms, as exemplified by the WTO. Hence, by developing instruments, standards and tools, and by providing technical support for compliance with those standards, the WCO makes it easy for its members to have tailor-made solutions for ease of doing business.

While contemporary customs administrations could effectively tackle traditional challenges relating to cargo release time, challenges to supply chain security and trade facilitation requiring capacity building and synergistic efforts still remain.
**Figure 1: Top 5 measures with highest implementation rate**

Top 5 measures with highest implementation rate

Based on implementation commitments by all WTO Members

- Art. 10.5 – Preshipment inspection
- Art. 9 – Movement of goods
- Art. 10.6 – Use of customs brokers
- Art. 5.2 – Detention
- Art. 10.9 – Temporary admission...

- Rate of implementation commitments today
- Rate of implementation commitments requiring additional time
- Rate of implementation commitments requiring additional time and assistance
- Rate of implementation commitments yet to be designated

Source: WTO Trade Facilitation Agreement Database, 2020

**Figure 2: Bottom 5 measures with lowest implementation rate**

Bottom 5 measures with lowest implementation rate

Based on implementation commitments by all WTO Members

- Art. 3 – Advance rulings
- Art. 8 – Border Agency Cooperation
- Art. 5.3 – Test procedures
- Art. 7.7 – Authorized operators
- Art. 10.4 – Single window

Source: WTO Trade Facilitation Agreement Database, 2020
The above data (Figures 1 and 2) from the WTO TFA database helps to analyse the achievements and challenges for Customs in facilitating trade. An analysis of the top five trade facilitation measures (Figure 1) reveals that these measures are solely under the prerogative of Customs, more concerned with basic customs procedures, and these measures are implemented by the contracting parties to the RKC. The bottom five measures with lowest implementation rate (Figure 2) are found to require partnerships between Customs and other agencies. They are more concerned with enhanced controls and domain issues. These measures require capacity building, outreach and adoption of synergistic paradigms. Hence the need for additional time and assistance for compliance with these measures.

Supply chain security and Globally Networked Customs: a network of realities

In the evolutionary sequence of customs cooperation, Globally Networked Customs (GNC) would be the climax. WCO instruments and recommendations underscore the importance of the exchange of information relating to supply chain to protect society, public health and safety. With ever increasing container volumes across the world, seaport and airport growth, and unpredictable port selection and usage, it is essential to create a strong and safe supply chain security system. Supply chain security requires a consistent approach towards strengthening cooperation between customs administrations, between Customs and other enforcement agencies, and Customs-to-Business partnerships. GNC envisions cross-border exchange of data among customs administrations along the supply chain. In a globalised world, supply chains, covering the origin(s), destination(s) and in-between(s), are transborder by nature. Supply chain security implies origin-to-destination security of the cargo. There should be effective security procedures and controls from the point of stuffing of cargo. Using technology such as RFID e-Seals; various detection methods including geofencing and reporting path diversion; and non-intrusive examination techniques like scanning; container and trailer integrity must be maintained to protect against the introduction of unauthorised material and/or persons during transit. Creating global solutions for supply chain visibility, security and predictability is the key to trade facilitation and it will also foster efficient and resilient supply chains by filling in any gaps. Supply chain security is the axis connecting the twin tracts of GNC—in other words the commercial track and enforcement track, as riskiness of transactions is the overlapping theme in both the tracts. Therefore, the authors consider supply chain security as the predominant factor contributing to the evolution of GNC. Five paradigms are identifiable in the efforts of Customs to ensure supply chain security. These paradigms range from being local at a Custom House to the global level.

1. A global risk management system
2. A global single window for compliance
3. Customs mutual administrative assistance
4. Customs overseas intelligence networks
5. Authentication by scanning or physical examination.

In addition to the intelligence exchange with the member administrations at a strategic level, Regional Intelligence Liaison Offices (RILOs) were established by CCC in 1987 as an added layer of information exchange. True to its intention, the RILO network, with 11 nodes, now serves as a global intelligence network covering all six WCO regions. A depository of enforcement-related information is continuously updated via the WCO Customs Enforcement Network (CEN) application. By its design as a global database for seizures and offences, CEN acts as a communication network that carries information. For instance, in 2010, the CEN database shared information on over 50,000 seizure cases related to narcotics, intellectual property rights (IPRs), weapons, currency smuggling and tobacco. This paradigm is further
reinforced by the information exchange requirements of contracting parties to the United Nations conventions on narcotics and illicit trafficking and also by the customs risk management system and nCEN platforms at national level, both of which help in identifying and tracking specific nodes in the supply chain. A global risk management system, with the active participation of member countries in sharing real-time information of sensitive cargo movement, will create an effective environment for detecting and tracking illegal movement of sensitive cargo. The greatest advantage of such a system would be the detection of potential risks in the supply chain at the earliest moment. A global risk management system must focus on establishing global risk parameters to identify high-risk containers, pre-screening of those high-risk containers at the origin port through non-intrusive technology, if possible, to reduce time, and passing on the information to the destination port before the arrival of the container for necessary action.

Linked to it is the next paradigm, a global single window for compliance. This paradigm could be the logical evolution of the AEO framework. The details of national AEOs are now available. This paradigm is increasingly reinforced by mutual recognition agreements (MRAs) for AEOs between customs administrations (WCO, 2011). Seventy-four bilateral and four regional/plurilateral MRA–AEOs were already concluded indicating that they have the potential and experience for Business-to-Customs exchange. Sixty-five MRA–AEOs are being negotiated. Even a relatively static database of national and mutually recognised AEOs at the global level would greatly help in compliance assessment, trade facilitation and risk management. A study on customs cooperation of WCO member countries with their major trading partners through the instrument of MRA–AEOs was carried out and the results are depicted in Table 1 showing current MRAs of WCO member countries with their top five trading partners.

*Table 1: Level of cooperation among major trading partners in the field of Customs-Business exchange through MRAs*

<table>
<thead>
<tr>
<th>WCO member countries: MRA-AEOs with top-5 trading partners</th>
<th>Export partners</th>
<th>Import partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of countries having MRA with at least one of their top 5 trading partners</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Number of countries having MRA with two of their top 5 trading partners</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Number of countries having MRA with three of their top 5 trading partners</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Number of countries having MRA with four of their top 5 trading partners</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>Number of countries having MRA with all the top five trading partners</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

*Source: Compilation from WCO Compendium for AEO Programmes, 2019 edition and World Bank WITS Data, Base year 2018*

A key component for promoting trade facilitation is having a single window system. Many countries have now implemented single window clearance, covering major agencies involved in the import/export of cargo. A few regional-level single window arrangements are also in place for the purpose of sharing information. The next step is to extend and integrate these systems beyond national boundaries to make it a ‘global single window’ system. This single window could be designed to utilise the unrealised potential of MRA–AEOs too. In addition to priority treatments, future developments in AEO programs could extend to member countries considering accepting documents submitted and other regulatory requirements completed at the port of origin and that should be accepted at the importing country to avoid duplication of work to further strengthen the seamless movement of international cargo.
A global single window where the integration of the single window of a country with other national single windows for MRA-AEOs, initially, would strengthen the global supply chain by approving participants in the supply chain. A global single window would further facilitate trade through the submission and verification of trade-related information or documents at a single entry point to fulfil all trade-related regulatory compliances. The major benefits of a global single window include faster clearances, a more transparent and predictable process, more governance and less government, enhanced compliance, and a secure supply chain.

Customs mutual administrative assistance (CMMA) is the earliest paradigm of customs cooperation in the field of supply chain security. Based on the impetus given by a recommendation of the CCC in 1953, analogous frameworks for exchange of information were operationalised by customs administrations through bilateral agreements. It is now a global phenomenon. One hundred and thirty-seven customs administrations and members of the European Union are a part of CMMAAs, indicating that they have the potential and experience for Customs-to-Customs exchange. The European Union, Eurasian Economic Union and South Asia Subregional Economic Cooperation (SASEC) provide the examples for regionally networked Customs. The European Union showed the way for CMAA and MRA-AEO agreements between the Customs Union and customs administrations from other regions. This paradigm is further reinforced by Article 12 of the WTO TFA, which provides for Customs-to-Customs exchange of information. Article 12 provides for the flow of information between the requesting member and the requested member. As it supports bringing data together only between two members, it is bilateral by design. However, with 149 contracting parties to the WTO TFA, this paradigm provides the potential for the network of networks. A study on customs cooperation of WCO member countries with their major trading partners through the instrument of CMMAAs is carried out and the results are depicted in Table 2 showing CMMAAs of WCO member countries with their top five trading partners.

Table 2: Level of cooperation among major trading partners in the field of Customs-Customs exchange through CMMAAs

<table>
<thead>
<tr>
<th>WCO member countries: CMMAAs with top five trading partners</th>
<th>Export partners</th>
<th>Import partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of countries having CMMAAs with at least one of their top five trading partners</td>
<td>40</td>
<td>39</td>
</tr>
<tr>
<td>Number of countries having CMMAAs with two of their top five trading partners</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Number of countries having CMMAAs with three of their top five trading partners</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Number of countries having CMMAAs with four of their top five trading partners</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>Number of countries having CMMAAs with all the top five trading partners</td>
<td>11</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Compilation by pooling of CMAA related information and World Bank WITS Data, Base year 2018

The time-tested network of networks is Customs Overseas Intelligence Networks. They collect data overseas and transmit to the targeting centres of the customs administrations. Their transborder role is of immense help in ensuring supply chain security in addition to checking customs fraud, trade-based money laundering and smuggling. Their orientation is at national level as they support their customs administration. However, this paradigm provides an internode for the networks as pooling of information is usual practice among intelligence networks.
The fifth in the list is the traditional paradigm, authentication by scanning or physical examination at Custom House level. It is noted for its unpopularity and impracticability with the growing volume of trade. One would wonder whether all other supply chain security paradigms owe their existence due to the undesirability and impracticability of this paradigm. However, this paradigm still acts as a deterrent for high-risk containerised shipments and is also useful as a random compliance assessment tool. However, sharing of information in the event of detection of major cases is the key to GNC.

From the above analysis, we highlight that discrete networks exist at different levels and they share a common objective. The genesis of GNC lies in specific exchanges between countries from a regulatory standpoint, Customs being the sovereign cross-border regulatory agency. Customs administrations are striving to ensure compliance with international supply chain security standards through different paradigms while promoting trade facilitation by faster clearance. GNC would be elusive only until the emergence of an internode connecting the discrete nodes. Network theory proposes that evolving networks mature as a function of time and the networks converge as a result of evolutionary pressure on the existing networks. Four of the five supply chain paradigms discussed here are evolving ones and are not static. The need for supply chain security is augured well by the need for trade facilitation as trade facilitation is a function of compliance. Supply chain security covers trade facilitation and goes well beyond by ensuring sustainability for the people and planet. Temporal themes in supply chain could be the immediate possible internode connecting the existing nodes for achieving the concept of GNC—interconnectedness for ensuring seamless supplies in the event of a pandemic, for instance.

**Customs citizen-centric approach for sustainability**

By letting in legitimate goods and shutting out harmful items, Customs serves as the sentinels of economic frontiers. The role of Customs is not limited to trade, as it includes international passengers and other agency functions also. The modern customs laws and regulations are designed so that traders can choose among a number of procedures. There is a need for Customs to place the citizen as the central focus, by transforming the procedures from process-centric to citizen-centric, especially in areas where the liability to pay cannot be shifted, for example in postal customs and e-commerce. Given the increasing miniaturisation of consignments for individuals, postal customs and e-commerce gain prominence in customs policy.

Claresson calls for Customs to foster sustainability for the people, prosperity and planet and enhancing the ease of living of the citizen indicate the future paradigms in customs administration (WCO, 2020). Timely clearance of goods, with substantial savings in time and money, would be a small step towards this goal.19

**The right queue**

The basic queuing model employed by Customs is being fast replaced with client-centric models. Guidelines on a dual channel system have been prepared by the Permanent Technical Committee of the WCO. It helps in the hassle-free movement of passengers in airports. At port terminals, direct port entry and direct port delivery help significantly in reducing both cargo clearance costs and time for export and import containers by allowing 24x7 clearances.

The application of queuing theory to customs operations provides a mathematical paradigm to improve efficiency and effectiveness, not only in times of tremendous increase in international trade, transit and travel, but also in times of humanitarian relief. This emerging paradigm has great potential for the future for two reasons: saving time through optimising the performance of existing resources and improving enforcement capability. The evolution of this paradigm would depend on IT systems and databases for assorting, prioritisation and communication, both for facilitation and enforcement. Rather than just using the available data, customs administrations have started acquiring required data by customs declarations.
and integration with internal tax networks. By embedding the domain expertise of Customs into the data analytics system, this paradigm is expected to create composite channels for customs operations. Such a channelling system would incentivise compliance by faster clearance and would help Customs in risk profiling to focus on smuggling and counterfeiting through small parcels. It would also help Customs to predict the arrivals and clearance time in practical situations.

The queue and trade facilitation

As the volume of trade across the borders is significantly increasing, the necessity for prioritising cargo is of increasing importance. Accredited clients like AEOs, globally recognised NGOs, Government enterprises and relief consignments during crisis situations need to be prioritised and their consignments should not be lined up with other consignments. The first in first out system in a normal queuing model should be altered to provide faster clearance for accredited clients subject to other risk assessment methods. This will incentivise the rule-bound clients and act as a bonus for business entities. Rather than queuing, right queue is the key factor here. Queuing prioritisation should be directly proportional to the level of compliance and the accredited status of the stakeholders. Figure 3 illustrates a model of queuing prioritisation for facilitation of emergency relief cargo and AEOs.

Figure 3: The queue and trade facilitation

Two-factor authentication system for e-Commerce

As the past unlocks the secrets to the future, let us consider for illustrating a queue model, a two-factor authentication system employed by the ancient customs administrations for faster clearance. The two-factor authentication system was operationalised through double concomitant seal impressions on the clay tags for ancient consignments, wherein one seal is apparently a self-seal and the other seal acting as counter-seal, attesting or endorsing it. In some cases, the self-seal appears to be that of a merchant
and the counter-seal impression belonged to a merchant guild. In other cases, the self-seal appears to be that of a merchant guild and the counter-seal impression belonged to a royal personage. Repurposing the two-factor authentication in a contemporary scenario, let us consider a composite two-factor channel for information flow through IT systems. The factors for authentication could be combined in different forms: pre-arrival declaration/compliance information by the consignee (vs) information sourced from e-Commerce database; pre-arrival declaration by the intermediary (vs) compliance information by the consignee; information sourced from e-Commerce database (vs) random checks by Customs; information sourced from e-Commerce database (vs) customs databases or databases of partner enforcement agencies. IT-enabled simple pre-arrival declaration/compliance information by the consignee is contemplated to authenticate the origin-to-destination supply chain here because the sender/intermediary submits the customs declaration for postal consignments for example. Allowing such pre-arrival declaration/compliance information is also expected to help in the prediction of arrivals and profiling. The two-factor authentication system would act as a risk management system, build trust, simplify issues related to return/reassessment of goods and is expected to reduce the need for opening and examination, thereby promoting faster clearance at times of tremendous increase in the number of consignments.

**Green Customs**

Among all forms of indirect taxation, Customs stands out as being concerned with legitimate cross-border trade or, rather, the movement of legitimate consignments. It is heartening to find that this privileged position assists customs administrations in their global fight against climate change, wildlife trafficking and cross-border movement of hazardous chemicals and wastes. The lucrative business of illicit trafficking of endangered species and harmful environmental goods could threaten the sustainability of the ecosystem and human health and would lead to species loss and failure of international environment agreements by circumventing the agreed rules (Green Customs, n.d.). In addition to the termination of illicit trafficking supply chains, the Green Customs enforcement activities are potently symbolic and induce behavioural changes en masse. The massive seizures of environmentally sensitive commodities, toxic chemicals, hazardous waste and endangered species by Customs over the years have left the public wonderstruck and contributes to consensus-building for the protection of the planet. Customs and other border agencies are well aware of their ever-increasing role not only on the trade front but also for environmental protection.

Future Green Customs initiatives by the WCO should focus on improving and promoting the trade volume of environmentally friendly goods and low carbon goods, which will contribute to sustainable development. The reduction of tariff rate, non-tariff barriers and making green technologies accessible to developing and least developed countries at low cost should be given priority. Specialised treatment to trading of environmental goods should be devised by each customs authority and goods that are directly or indirectly used for producing environmentally friendly goods/green goods should be given fast-track clearances.

**Humanitarian Customs**

Much is talked about the expanding role of Customs. In the ever-expanding role, the readiness of Customs in the event of a humanitarian crisis and concerns about the impact of trade and movement of people across borders during the crisis is the need of the hour. Supply chain slowdown in the event of a pandemic is a relatively unexplored area of customs cooperation. During such unexpected crisis situations, every effort taken as a measure of trade facilitation by countries will have substantial impacts on the entire relief chain; customs procedures during transit are particularly relevant for disaster-affected landlocked countries for avoidance of additional delay in the arrival of relief items shipped by sea and transiting through a third country. 

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As an early response against the emergent situation on account of the coronavirus (COVID-19) outbreak, the Central Board of Indirect Taxes and Customs, Government of India, introduced 24x7 clearances at all customs formations and also set up a trade helpdesk for EXIM trade stakeholders for providing the required assistance and resolving issues through coordination with relevant agencies. To illustrate, Meerut Customs Zone and Delhi Customs Zone of Indian Customs set up on-ground facilities at designated places for the smooth processing of Indian citizens who returned from affected countries. Keeping in mind the exigency because of COVID-19 in China, and in order to facilitate clearance of the consignments, the Chennai Zone of Indian Customs decided in the public interest that Bills of Entry filed late for clearance of import consignments from China would not attract any late fee charges as the documents were stuck inside locked offices of shippers at Chinese cities. This decision was hailed as a double bonanza to consignees and agents as it also avoided containers that arrived from China being stranded. Consciously relaxing procedures to avoid financial losses for stakeholders during such a crisis serves to demonstrate that Customs cooperation is imperative for trade. The capability to defeat the spread of the pandemic at lower cost depends much on the early supply of reinforcements at the start of the problem in order to enhance the preparedness.

In this context, provisions expanding the scope of Chapter 5 Annex J of the Revised Kyoto Convention dealing with relief consignments shall be analysed. The spirit of Chapter 5 would be better served if it brought a protocol for clearance of dutiable consignments for relief in humanitarian emergencies under a fast-track mechanism. This would avoid the emergency relief consignments lining up with other consignments for clearance. Every country should follow the June 2011 resolution of the Customs Cooperation Council and the relevant principles of the SAFE framework of standards on the role of Customs in facilitating the clearance of relief consignments. Every country must have regulations in place (i.e. handling of cargo [emergency relief consignments] in customs area regulation) to handle the movement of cargo and personnel during the emergency relief situation. Established legal regulations and frequent training and coordination among border agencies will also help the countries hit by disaster to respond immediately without panic.

All customs administrations should have a fast-track clearance mechanism to clear relief cargoes during an emergency. For example:

1. Special berthing of vessels carrying relief cargo without queuing
2. Separate stacking of relief containers in the port terminals
3. Customs formalities to be fast-tracked before the arrival of vessels: simplified filing and easy declarations, clear policy guidelines related to tariff, import/export restrictions, facilities for deferment of duty in case of dutiable relief consignments, examination only in exceptional situations
4. Direct port delivery of cargo
5. Logistic prioritisation, emergency clearance of containers from port to destination with private sector participation (prior agreements with private logistics partners through corporate social responsibility)
6. Government legislation to control cost escalation by critical partners involved in handling of relief cargo and personnel movement (as local partners are critical to success of any emergency situation).

The role of trade in recovery and reconstruction of countries in the aftermath of a disaster is very important. Revival of trade in the affected area will stimulate growth. Hence, continuous cooperation between Customs and other border agencies would play a vital role in bringing the country’s economy back on track.
Teaming up

WCO supports Customs modernisation initiatives at national, sub-regional, regional and global levels by teaming up with other international organisations. This paper does not intend to enumerate all such WCO partnerships but highlights a few emerging paradigms in this regard.

By supporting trade facilitation, the WCO supports the work of the WTO. Post-WTO trade facilitation negotiations, a growing number of WCO partnerships are aimed at achieving economic prosperity of the people through trade facilitation, especially in least developed countries, small island economies and developing countries that require technology, capacity building, and technical support in order to comply with modern international trade regimes. Rather than following a one-size-fits-all approach, the emerging paradigm in the WCO’s technical assistance appears to be tailor-made plans of technical assistance to fill the identified gaps, with single-source or multi-source financial support from other organisations. WCO’s Small Island Economies Initiative (2018), which aims at dedicated support to customs administrations in small island economies, and its Global Trade Facilitation Programme (GTFP) for select beneficial countries, illustrate this paradigm.

At sub-regional and regional levels, the WCO has done commendable work in easing the transit regime to improve third country trade via ports and land ports through partnerships with regional and international organisations. Each regional transit scheme involving member countries should be further strengthened by direct participation of the WCO through diagnostic missions and tailor-made plans by teaming up with the organisations sharing common objectives.

A novel paradigm in teaming up is WCO’s encouragement of customs administrations to engage with micro, small and medium enterprises (MSMEs). MSMEs are allotted separate and unique tariff codes by customs administrations to promote their export competitiveness (Government of India, 2019). ITC-WCO Rules of Origin Facilitator, launched in 2018, was developed by the partnership of the WCO and the International Trade Centre (ITC) to help MSMEs to benefit from duty savings under preferential trade arrangements (WCO, 2018). WCO also makes trade facilitation work for MSMEs through encouragement of the AEO programme for faster clearance.

Conclusion

Of the evolution of customs cooperation traced in this paper, two parallel strands emerge almost in tandem: one strand shows the evolution of technical cooperation and the other relates to cooperation in operational issues. As significant strides have already been made by the sustained efforts of the WCO in technical cooperation, the emerging paradigms in customs cooperation appears to centre towards operational issues.

There is a clear need for customs administrations to cooperate more proactively. The WCO has done a great deal in developing excellent international standards on different processes related to Customs and it supports compliance with those standards through technical support.

As the evolution of customs cooperation has passed through stages such as standardisation and harmonisation, simplification of customs procedures, and trade facilitation, the future of customs cooperation would lie in prescribing methods and practices for addressing and reducing vulnerability of cross-border supply chains to risks and shocks caused by man-made and natural factors. In this context, the potential of Globally Networked Customs for early response to emerging risks is to be explored as it provides the possibility for cooperation on a real-time basis to mitigate cross-border challenges before they arise.
Perhaps the time has now come for the full-scale operation of GNC relating to supply chain security on select risk parameters. The risks and problems faced by member countries are no longer different. Various problems faced by member countries are reflected by the risks and problems associated with compliance and the level of enforcement of regulatory requirements by Customs during movement of goods and persons across international borders. It is only a matter of time for pro-active cooperation among the customs community and the enormity of resources applied by customs administrations illustrates and recognises these risks and problems. Thus, GNC must evolve from mere networking and sharing of information towards preventing and mitigating the damage to the people, planet and prosperity.

References


**Notes**

1. As Mario Pei, in his *Language of Taxation* puts it ‘The terminology of taxation varies from period to period and from country to country.’ However, unlike other forms of ancient taxation such as land tax, the etymological history of technical names representing Customs in different language families (for example Douane, Telos, Zoll, Shulka, Chugai, Tariffa etc.) show relative permanence through centuries as well as diffusion into adjoining regions/language families. Diffusion of Customs terminology into adjoining language families provides the etymological evidence for harmonisation. Customs terminologies are immortalised through centuries by cross-border trade peer groups. Linguistic studies proves that the mercantile world has a dialect of its own and the dialect has transcended the boundaries of languages and regions.


3. ‘As regards the sale of the king’s merchandise in foreign countries:- Having ascertained the value of local produce as compared with that of foreign produce that can be obtained in barter, the Superintendent of Trade will find out (by calculation) whether there is any margin left for profit after meeting the payments (to the foreign king) such as the duty (Śulka), road-cess (vartani), conveyance-cess (ātivāhika), tax payable at military stations (gulmadeya), ferry-charges (taradeya), subsistence to the merchant and his followers (bhakta), and the portion of merchandise payable to the foreign king (bhāga).’ Kautilya’s *Arthasastra*, Translated by Dr.R. Shamasasathy with an introductory note by Dr. J.F. Fleet, Wesleyan Mission Press, Mysore, 1929.


5. The supply chain started from Muciri in the Malabar Coast in India to the Red Sea, then to Coptos and then across the Nile to Alexandria in the Mediterranean Coast.

6. The *Arthashastra* of Chanakya (4th Century B.C) and Suma Oriental of Tom Pires. Also see ‘Looking Back Looking Forward’ Brochure, WCO-30th Anniversary of the GATT / WTO Valuation Agreement.

7. CCC is established by the Convention of 15-12-1950, which is accepted by 183 countries. By CCC, we are referring to the representatives of customs administrations who meet at the Council as well as the WCO secretariat.


10. ‘There is a close link between the development by the Customs Cooperation Council of the ‘harmonized system’ and the multilateral trade negotiations (MTN) which are currently taking place in Geneva. It is generally agreed that Non-Tariff Barriers will be an important element in the MTN, and tariff nomenclatures have already been identified as a major area for discussion in this context.’ Aide Memoire to the US International Trade Commission by Raymond Phan Van Phi, Commission Director in Charge of GATT Affairs, and Henry Chumas, the European Commission’s Chief Adviser on Tariffs
in the administration of the Customs Union. May 15, 1975.

11 WCO Press Release–Celebrating 30 years of Customs valuation, Brussels, 13 April 2010. Article 18 of the Agreement on the Implementation of Article VII of the GATT 1994 provides, ‘Technical Committee on Customs Valuation (referred to in this Agreement as ‘the Technical Committee’) under the auspices of the Customs Co-operation Council (referred to in this Agreement as ‘the CCC’), which shall carry out the responsibilities described in Annex II to this Agreement and shall operate in accordance with the rules of procedure contained therein.’

12 Report by Chairman of the Valuation Committee, J Alvarez (Spain) in the 25th Anniversary Sessions of the Customs Cooperation Council in Brussels from June 12 to 16, 1978, under the chairmanship of J Broz (Czechoslovakia).

13 ‘A change in the rate of import duty is clearly visible, while an increase in the rate of duty as a result of changes in the system of valuation is considerably less noticeable and more difficult to prove’ (de Pagter & Van Raan, 1981).

14 Article 18 of the Agreement on Implementation of Article VII of the GATT 1994. Also see, ‘The functioning of this Committee is under the direct control of the Council but is also responsible and subject to the GATT’.p.34, The international activities of the US Customs Service, 1984.


16 Customs Cooperation Council adopted the working name World Customs Organisation (WCO) in 1994. In 1994, the Agreement on implementation of Article VII of the GATT provided for Technical Committee on Customs Valuation under the auspices of the CCC. Also, in 1994, the Agreement on Rules of Origin was incorporated in the Uruguay Round of GATT Multilateral Trade Negotiations.


18 Fiscal Year 2012 Budget Justification: State, Foreign Operations, and Related Programs Appropriations for 2012, Part 1, Department of State, United States of America, p. 620.

19 Shri M. Ajith Kumar, Chairman, CBIC, Department of Revenue, Ministry of Finance, Government of India, Newsletter 14.2.2020.


21 WCO works in partnership with the SSATP and IRU to promote the Transit Guidelines at a regional workshop on Transit for the ESA region, 28 November 2017. Also see South Asia Subregional Economic Cooperation (SASEC) Trade Facilitation Strategic Framework 2014–2018.
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