ARTICLE 10: FORMALITIES CONNECTED WITH IMPORTATION, EXPORTATION AND TRANSIT

Electronic certificate of origin (e-COO)

1. Introduction

In order to benefit from the preferential tariff treatment under preferential trade, the products need to satisfy the rules of origin comprised of origin criteria and procedural requirements. A proof of origin is presented to the Customs authority in the importing country to establish the origin status of the products and to prove the products are eligible for preferential tariff treatment. A proof of origin is the document or statement (either in paper or electronic format) which serves as a prima facie evidence to support that the goods to which it relates satisfy the origin criteria under applicable rules of origin.

Traditionally, a COO is issued in a paper form in the exporting country and submitted in the importing country, which often requires delivery of the original paper COO from the exporter to the importer via international mail (See Figure 1). For the paper-based COO, the authenticity of a COO is often ensured by the signature and official seal of the competent issuing authority.

An electronic certificate of origin (e-COO), on the other hand, is a digitized version of COO, applied, certified and issued electronically. And the authenticity of e-COO is ensured by the database of the issuing authorities and often Electronic Verification System publicly accessible on the official website of the issuing authorities.

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When e-COO is implemented by the Customs administrations in the exporting and importing countries, the Customs administration in the importing country no longer needs to impose submission of an original paper COO on the importers and may accept a photocopy or an electronic copy of COO. Or they may not request submission of COO at all especially when the cross-border exchange system of e-COO data is implemented between the importing and exporting country. In this case, if the exporter still forwards the original paper COO to the importer, it is not for the purpose of claiming preferential tariff treatment but for complying with record-keeping requirement prescribed in the trade agreement (See Figure 2).

![Figure 2: Claiming preferential tariff with COO and e-COO](image)

E-COO is an efficient and cost-effective and time-saving option compared to the paper-based COO. With enhanced transparency and reduced concerns over the COOs being forged or tampered, e-COO opens a possibility of simplified procedure for the preferential trade.

Aiming to emphasize the importance of e-COO in facilitating preferential trade and to promote cooperation among the WCO Members in digitalizing and simplifying trade procedures, this paper will introduce efforts and best practice of Korea Customs Service (KCS) in the implementation of e-COO in cooperation with the Customs administrations of Korea’s FTA partner countries.

2. Implementation of e-COO by Korea Customs Service

2.1. Role of KCS in FTA implementation

The role of KCS is crucial in implementing preferential trade agreements in regard to the trade in goods. KCS is responsible for implementing free trade agreements and other trade agreements signed by South Korea (hereafter collectively FTAs altogether) in the Customs procedure including granting preferential tariff and conducting retroactive origin verification. KCS participates in the negotiation of FTAs as a member of Korean government delegation and maintains close cooperation with domestic and overseas agencies as well as the private sector to facilitate implementation and resolve issues or difficulties faced by the trade operators in utilizing
FTAs. Furthermore, KCS provides a wide range of technical assistance to the importers and exporters and deliver support programs so that they can fully enjoy the benefit of the preferential trade.

In addition, KCS plays a critical role in the operational certification procedure (OCP) of FTAs as a competent issuing authority of COO along with Korea Chamber of Commerce and Industry (KCCI). In particular, by the domestic law regulating FTA implementation\(^2\), KCS is empowered to provide guidance and supervision to the issuing authorities affiliated with KCCI and to certify approved exporters.

### 2.2. Challenges from paper-based COOs

![South Korea's FTA map (as of Sep. 2022)](image)

Since the Korea-Chile FTA coming into force in 2004, the South Korean government has proactively expanded and concluded FTA negotiations with the global trade partners. As of September, 2022, a total of 18 FTAs are in effect with 58 countries. The negotiation of 4 FTAs was completed while there are ongoing negotiations with more countries and/or regional bodies (See Figure 3).

Over the years, with the implementation experience of KCS accumulated and matured, the FTA utilization rate by Korean traders has been on the continuous rise. In 2021, trade volume with FTA partners accounted for 71.7% of the total trade volume of South Korea and in August, 2022, 77.2%. However, operational certification procedures (OCP) of FTAs do not necessarily catch up with the development of technology and rapidly changing trade environment. Particularly, of the FTAs requiring certification by the competent authorities, some adheres to paper-based COO and impose

\(^2\) Article 11 (Preparation and Issuance of Certificates of Origin) and Article 12 (Certification of Approved Exporters) of Act on Special Cases of the Customs Act for the Implementation of Free Trade Agreements
submission of an original paper COO for claiming preferential tariff treatment in the importing countries (See Table 1).

**Table 1: Origin certification under FTAs signed by South Korea**

<table>
<thead>
<tr>
<th>FTAs</th>
<th>COO by competent authorities</th>
<th>Self-issued certificates</th>
<th>Origin declaration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Original paper copy required</td>
<td>Not specified</td>
<td>Approved exporter</td>
</tr>
<tr>
<td>ASEAN, India, China, Viet Nam</td>
<td>Singapore, RCEP</td>
<td>Chile, Peru, US, Colombia, Canada, New Zealand, Central America, RCEP</td>
<td>EU, UK, RCEP</td>
</tr>
<tr>
<td></td>
<td>Self-issued certificates</td>
<td>Not specified</td>
<td>EFTA, Turkey (RCEP)</td>
</tr>
</tbody>
</table>

Due to the vulnerability of paper-based COO to the forgery or tampering, the paper-based COOs tend to be under more strict scrutiny by the Customs officials in the importing country. The smallest oversight often leads to the plain denial of preferential tariff treatment or the COO in question is sent back and forth by international mail between the importing and exporting country for correction. This not only obstructs the flow of legitimate trade but also incurs administrative and logistical costs such as shipping cost of international mail, storage fee of freight cargo and financial damage to the business caused by the logistics delay.

Therefore, by accepting e-COOs instead of only allowing original paper COOs, time and cost wasted for international delivery and submission of paper documents would be curtailed considerably, which will lead to enhanced utilization of preferential trade.

### 2.3. Electronic issuance system of COO

The history of e-COO in the South Korea dates back to 2006. KCS launched e-COO service in September 2006. On top of convenience and cost-effectiveness to the traders, the nationwide implementation of e-COO was meaningful in that the basic infrastructure was finally ready for building electronic verification system and electronic origin data exchange system (EODES), which is essential for digitalizing preferential trade procedure between the importing and exporting countries.

Nowadays, traders can apply COO electronically from UNI-PASS³ operated by KCS or from the Trade Certification Service Center of Korea Chamber of Commerce and Industry (KCCI), from which applicants fill in and submit the application form along with the supporting documents and self-print the issued COO after approval by KCI or KCCI. The electronic issuance systems of KCS and KCCI

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³ UNI-PASS is a border management system of KCS, which enables one-stop paperless clearance service using the clearance portal & Single Window, real-time cargo management & tracking, risk management, etc.
enable verification of authenticity of issued COOs through the respective electronic verification systems accessible to the public. The users can make a query on the authenticity of the e-COO by using a unique Reference No. and Reference Code indicated on the e-COO (See Table 2).

Table 2: e-C/O Systems of KCS and KCCI

<table>
<thead>
<tr>
<th>Electronic Issuance System</th>
<th>KCS  (<a href="http://unipass.Customs.go.kr">http://unipass.Customs.go.kr</a>)</th>
<th>KCCI (<a href="http://cert.korcham.net">http://cert.korcham.net</a>)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Electronic Verification System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KCS  (<a href="https://Customs.go.kr/co.html">https://Customs.go.kr/co.html</a>)</td>
<td>KCCI (<a href="http://cert.korcham.net/search/index.htm">http://cert.korcham.net/search/index.htm</a>)</td>
</tr>
</tbody>
</table>

![Figure 4: Security features of COO issued by Korean authorities](image)

The self-printed COOs issued by Korean issuing authorities have security features to prevent counterfeiting and guarantee the authenticity. A watermark logo of the issuing authority is placed in the center while QR code on the top right corner and 2D barcode on the bottom
provide a link to the electronic verification systems (Figure 4).

2.4. **e-COO models implemented by KCS**

There are two main models of e-COOs implemented by KCS so far. Firstly, it is the cross-border data exchange model, namely, EODES model. In this model, the data of e-COO are exchanged between the Customs authorities in the importing and exporting countries through Electronic Origin Data Exchange System (EODES). As was shown in the Figure 5, after e-COO is issued upon the electronic application by the exporter, the data of issued e-COO is created in the database of the issuing authority, followed by transfer to the Customs authority of the exporting country. The e-COO data is subsequently transmitted to the Customs authority of the importing country.

![Figure 5: EODES model](image)
The Figure 6 describes the second model of e-COO implemented by KCS, namely, Electronic Verification System model. In this model, an exporter does not need to send a paper COO to the importer and instead, sends an e-COO for the purpose of claiming preferential tariff treatment. The e-COO is then submitted to the Customs authority of the importing country, which verifies the authenticity from the Electronic Verification System of the issuing authorities of the exporting country and makes decision on the preferential tariff based on the e-COO.

2.5. Implementation of EODES model

The discussion on building the EODES between KCS and China Customs started when the FTA negotiation between South Korea and China was still on the way. In July, 2014, the two Customs administrations signed a strategic partnership arrangement and agreed to exchange Customs data on preferential tariff treatment under the future bilateral preferential trade agreement between the two countries as well as to establish electronic data exchange system. The arrangement was reflected in the Korea-China FTA – development of Korea-China EODES and utilization of e-COO data in claiming preferential tariff treatment. Korea-China FTA was officially signed on the first day of June in 2015 and came into effect on 20 December 2015.

After technical meetings, the software development began in December, 2015 and EODES launched into trial operation in July, 2016, followed by full operation in December, 2016. In addition to the e-COO data under Korea-China FTA, e-COO data under Asia-Pacific Trade Agreement

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4 Arrangement between the Korea Customs Service of the Republic of Korea and the General Administration of Customs of the People’s Republic of China on Strategic Cooperation. 3 July 2014
(APTA) began to be exchanged through EODES since May, 2017.

Based on the experience of successful implementation of Korea-China EODES, KCS initiated a project to expand EODES to other countries with special focus on the FTAs specifying mandatory submission of an original paper COO. After the implementation of Korea-China EODES, there left Korea-ASEAN FTA, Korea-India CEPA and Korea-Viet Nam FTA.

In particular, ASEAN Member States were a crucial target: Korea-ASEAN FTA in effect since June, 2007 not only prescribed submission of an original paper COO at the importing Customs administration but also covered 10 countries in the Southeast Asia, who had been important trade partners of the South Korea. According to the trade statistics of South Korea in 2018, exports to the ASEAN Member States accounted for 17% of the total export value and import from the ASEAN Member States accounted for 11% of the total import value (See Figure 7).

![Figure 7: Trade statistics of South Korea in 2018](image)

KCS invited Customs administrations in the ASEAN Member States to develop EODES, to which Viet Nam\(^5\) and Indonesia\(^6\) Customs gave a positive response. Firstly, KCS signed the Memorandum of Understanding (MOU) on EODES with Indonesian agencies such as Directorate General of Customs and Excise, Indonesia National Single window Agency and Directorate General of Foreign Trade in April, 2019. After the two sides reached a technical agreement, they promptly developed the system. In February, 2020, pilot service launched and in March, 2020, Korea-Indonesia EODES entered into full service.

After the agreement between KCS and General Department of Viet Nam Customs in June, 2017, the system development has been negotiated under the framework of the Customs Committee of Korea-Viet Nam FTA. The 2\(^{\text{nd}}\) meeting of the Joint Committee, the highest-level committee under Korea-Viet Nam FTA co-chaired by the trade ministers of the two countries, agreed on the development of EODES in February, 2018. Subsequently, it was agreed that the Working

\(^5\) The heads of KCS and Viet Nam Customs reached an agreement to develop EODES in June, 2017.

\(^6\) The heads of KCS and Indonesia Customs agreed to develop EODES in February, 2019.
Group on EODES would be established in July, 2018, which was endorsed at the 3rd Joint Committee in October, 2019 and signed by the trade ministers of the two countries in April, 2020. In spite of difficulties from COVID-19, the two sides have reached a technical agreement in January, 2022 and aims to launch the service in 2023.

In addition, KCS is working closely with India Customs in developing the EODES system between the two countries. After the first proposal of KCS on the exchange of e-COO data at the 2nd meeting of Korea-India CEPA Upgrading Negotiation in February, 2017, the leaders of the two countries agreed on the development of the system and exchange of e-COO data in February, 2019, followed by the heads of KCS and India Customs signing the MOU on EODES in May, in the same year. The two sides reached a technical agreement in September, 2022 and strive to launch the service in 2023, marking the 50th anniversary of the diplomatic relationship between the two countries.

2.6. Implementation of electronic verification system model

In line with the Korea-Singapore Digital Partnership Agreement (DPA), of which the negotiation began in 2020, the two governments agreed on the acceptance of electronic versions of trade administration documents such as the COO and Certificate of Non-Manipulation (CNM) as the paperless trading measures outlined in the DPA.

In this context, Korea and Singapore Customs agreed to simplify the procedure for preferential tariff treatment between the two countries by allowing the submission of electronic versions of COO and CNM under Korea-Singapore FTA, AKFTA and RCEP. The authenticity of e-COO will be verified by the electronic verification system at the official website of the two Customs while the authenticity of CNM will be verified by the issuing Customs upon the receipt of the verification request from the other Customs. In the meanwhile, KCS developed the electronic verification system for CNM and launched the service in June, 2022.

In addition, the discussion is under way between the authorities of the two countries on the procedure to utilize e-COO of the electronic verification system model in accordance with The Korea-Israel FTA specifying e-COO along with the paper COO.

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7 The provisions on Digital Economy agreed by the two governments will replace Chapter 14 (Electronic Commerce) of Korea-Singapore FTA when DPA comes into effect.

8 The system is accessible at https://www.Customs.go.kr/english/ad/nonMani/nonManiView.do?mi=11766

9 Korea-Israel FTA prescribes that “Certificate of Origin refers to either an Electronic Certificate of Origin or a Paper Certificate of Origin” and that “Certificates of Origin shall be issued by the Issuing Authorities of the exporting Party, either upon an electronic application or an application in paper form” in the paragraph 1 and 2 of Article 3.16 (Procedures for the Issuance of Certificate of Origin) respectively.
2.7. **System tools developed for implementing e-COO**

KCS set to develop the infrastructure for cross-border exchange of e-COO data for the first time in 2014. In developing EODES with China Customs, KCS introduced hardware and software for data transmission, encryption and decryption and completed building the basic communication channel in 2015. In 2017, the system was improved to include functions for analysis and management of the data exchanged.

It would make system maintenance far easier if the exchange of e-COO could be implemented through a uniform platform applying identical data transmission and security methods, where they exchange messages of identical structure containing the same data elements regardless of the counterpart country/administration.

The experience of KCS, however, proves it difficult and even unrealistic to build a platform of identical features for the data exchange with different counterparts. Customization was inevitable reflecting the result of negotiation with the counterpart administration. As the result, each e-COO exchange system ended up with being a totally different system with one another with similarities and differences in features such as web service method, data exchange scheme, data elements, etc. The EODES systems interact with UNI-PASS database and web application server (WAS) for data management.

KCS developed features in the UNI-PASS application so that the authorized KCS users may retrieve e-COO data. The users may retrieve and view the lists and details of e-COO data, transmission status and statistics. The process information of a specific e-COO is also accessible by the public. On the website operated by KCS, the traders can make an online query and check the process status of e-COO issued in Korea or in the counterpart country and transmit through EODES (See Table 3). A mobile-friendly website was developed as well for checking the process status.
The implementation of Electronic Verification System model is subject to the existence of Electronic Verification System and stable operation by the issuing authority. KCS has been providing the service where the users can verify the authenticity of COOs issued by KCS since 2006. Please see Chapter 2.3 for the details of Electronic Verification Systems of Korean issuing authorities.

2.8. Overcoming challenges in the implementation

New attempts accompany new challenges. When KCS first started discussion on exchanging e-COOs with overseas agencies, the biggest concern was possible disclosure of sensitive corporate information to the foreign governments such as prices and list of raw materials, production process and their business partners. It was feared that the so-called trade secrets would be handed over to the foreign government and fall into the hands of the business rivals in that country along with the e-COO data.

To dispel such suspicion and concern, KCS made sure the data to be exchanged is restricted to those included in the COO and those directly related to the preferential tariff treatment in the importing country. In addition to the confidentiality clause in the FTA, KCS and the counterpart administrations guaranteed secrecy of the exchanged information by specifying it in the bilateral arrangement or in the memorandum of understanding (MOU). Also, security features were designed and added for the EODES so that encrypted messages would be transmitted through the secure channel.
Even within the KCS, some officials may not be overly eager for the real-time exchange of origin data with foreign government. In order to draw out positive responses and consensus within the administration, KCS held an internal policy coordination meetings chaired by the KCS commissioner several times. At the same time, legal consultation was sought, which was conducted by internal and external legal experts to ensure the data exchange would not violate existing laws and regulations.

After successful implementation of Korea-China EODES in 2016, KCS was enthusiastic about developing a similar system with other countries which signed FTAs with Korea, especially requiring certification of origin by the competent authorities. Contrary to China Customs, which first initiated the project, some partner administrations did not readily accept the new idea of cross-border exchange of e-COO data. KCS persuaded the partner administrations emphasizing the advantages of e-COO data exchange including reduced administrative and logistics cost, trade facilitation and improved transparency.

Gaining legal grounds for implementation was one of the efforts to encourage the counterpart administration. KCS has made proactive efforts to add clauses about e-COO and EODES in the FTA texts, for instance. The legal basis of e-COO, especially EODES will be covered more in detail in the next chapter.

2.9. **Efforts to gain legal basis**

The firmest legal basis to the implementation of e-COO is including the texts in the respective Trade Agreements. The Korea-China FTA would be the perfect example. In the Chapter 3 (Rules of Origin and Origin Implementation Procedures) of Korea-China FTA, Article 3.27 (Electronic Origin Data Exchange System) prescribes that “both Parties endeavor to develop EODES before the implementation of Korea-China FTA” based on the strategic arrangement between Korea and China Customs. In addition, the Agreement specifies the facilitative procedure utilizing EODES: Article 3.17 (Claims for Preferential Tariff Treatment) prescribes that “if all the information of COO is exchanged between the Customs authority of each Party through EODES, the Customs authority of each Party may not require the importer to submit the COO on importation”.

Following the practice, KCS coordinated efforts with domestic agencies participating in the FTA negotiation to add the articles on e-COO and EODES in the texts of new FTAs. For instance, the Chapter 3 (Rules of Origin and Origin Procedures) of Korea-Indonesia Comprehensive Economic Partnership Agreement (CEPA) signed in December, 2020 provides definition of e-COO\(^\text{10}\)

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\(^{10}\) In the Paragraph 2 of Article 3.16: Certificate of Origin, “a Certificate of Origin is any of (a) a certificate of origin in paper format; or (b) an electronic certificate of origin, which “means a Certificate of Origin data that is transmitted electronically between Korea and Indonesia through EODES referred to in Article 3.25” according to the Paragraph 4 of the same article.
and development of EODES while Korea-Israel FTA officially signed in May, 2021 includes the concept of e-COO in the Article 3.16 (Procedures for the Issuance of Certificate of Origin). Likewise, RCEP (in effect in February, 2022) and Korea-Cambodia FTA (officially signed in October, 2021), have articles on EODES while the Korea-Singapore Digital Partnership Agreement (the negotiation of which was officially concluded in December, 2021) includes the article on the cross-border paperless trading. For the FTAs already in effect without articles on EODES, KCS is striving to amend the Agreement in the course of system development with new partner countries such as Viet Nam and India.

While FTA gives the firmest legal basis to the implementation, detailed procedure still needs to be specified on how e-COO is utilized for preferential tariff treatment, which is often missing in the FTA text. To supplement FTA texts, KCS signed an MOU with partner agencies on the establishment and operation of the system.

For instance, KCS signed an Arrangement on Cooperation on the Implementation of Korea-China FTA in October, 2015 describing operation of EODES and the data elements to be exchanged by the system. In the case of Korea-Indonesia EODES, the MOU signed with Indonesian authorities and domestic regulations of both countries complemented Korea-ASEAN FTA (AKFTA) without articles on EODES by describing simplified certification procedure following the exchange of e-COO data. In addition, the MOU prescribes detailed business process and technical specifications. In like manner, MOU was signed with or is planned to be signed with the partner authorities such as authorities in Viet Nam, Singapore and India.

As the result of efforts of KCS, the implementation of e-COO has been incorporated in the Korean domestic legislation as well. The efforts began with adding the articles on e-COO in the KCS Public Notice on Administrative Treatment of the Act on Special Cases of the Customs Act for the Implementation of FTAs in 2016. In accordance with Article 12 (Requirement of Submitting Document Evidencing Origin) and Article 18 (Filing a Post Application of Conventional Tariff after Import Declaration), the importers are exempted from submitting original COO when e-COO data is received through EODES.

The articles on the e-COO gained a higher legal ground by adding articles on EODES in the Act on Special Cases of the Customs Act for the Implementation of FTAs. Article 9 (Requests for Ex Post Facto Application of Conventional Tariffs) prescribes omission of submitting COO when e-COO data is received through EODES and Article 33 (Reciprocal Cooperation) acknowledged “cooperation of KCS for the establishment and operation of the system enabling electronic exchange of the Certificate of Origin information with the Customs authority of any Contracting Party.”
2.10. Achievement

The cross-border implementation of e-COO promoted the convenience of the traders significantly by simplifying trade procedures. Most importantly, the inconveniences from paper-based COO have been addressed by reducing the procedures involved in international and domestic delivery of paper documents and prevented the risk of leaking sensitive corporate information through theft/loss during the delivery.

As the result of Korea-China EODES, the utilization rate of Korea-China FTA has increased from 33.9% in 2016 to 49.7% in 2017 and as much as 57.2% in 2019. In 2021, the reduced clearance time and logistics costs resulted from the implementation of Korea-China EODES is estimated to amount to 72 million US Dollars and Korea-Indonesia EODES, 13 million US Dollars.

In addition, it is noted that the implementation of e-COO has mitigated the difficulties experienced during the preferential trade procedures in the Customs authorities in the importing countries. For instance, after the implementation of Korea-China EODES, the number of complaints received by KCS from the Korean exporters regarding the FTA-related difficulties in China, showed a dramatic decrease from 80 cases in 2016 and 134 cases in 2017 to 30 cases in 2018, followed by 22 cases in 2019, 13 cases in 2020 and 23 cases in 2021. With the e-COO ensuring the authenticity of COO, the Customs officers in the importing Customs authority would not need to go through a thorough check on the paper-document to find the signs of forgery or tampering.

3. Conclusion

With rising trend of digital trade, traditional paper-based COO has been rapidly replaced by the e-COO in the recent decade. The trend has been accelerated during the supply chain crisis caused by the COVID-19 pandemic situation. Now, the issue at hand is not only digitizing issuing procedure of paper-based COO in the exporting country but also digitizing the preferential trade procedure by implementing e-COO in the importing country.

Even though a COO is issued electronically in the exporting country, if the e-COO has to be printed in the paper and should subsequently be mailed to the importer to submit the paper to the Customs administration for claiming preferential tariff treatment, the benefit of e-COO is limited. The more forward-looking concept of e-COO should include complete replacement of paper-based COO in the importing Customs. However, the implementation of simplified procedure utilizing e-COO goes beyond the efforts and resources of the issuing authorities of the exporting country alone.

The digitization of trade procedure requires raised awareness and proactive efforts of the Customs administrations for the trade facilitation and often collaboration between the administrations involved. Thus, common understanding among the WCO Members would speed up
the implementation of e-COO and digitization of trade procedures, resulting in enhanced utilization of trade agreements and trade facilitation.

Korea Customs Service has implemented simplified trade procedure utilizing e-COO since 2016 through active proposal and bilateral cooperation with the Customs administrations in FTA partner countries. Aiming to contribute to developing the WCO tool on the digitalization of the Certificate of Origin, KCS would like to share the practice with the WCO Members. KCS will continue to support the efforts of the WCO Secretariat in raising awareness and coordinating capacity building activities to spread facilitative origin procedures in the Member administrations.