A joint publication of the World Customs Organisation (WCO) and the World Trade Organisation (WTO) explores how the application of blockchain, distributed ledger technology (DLT), the internet of things (IoT), big data, data analytics, artificial intelligence (AI) and machine learning can promote trade facilitation and assist customs administrations in fulfilling their objectives of ensuring safety, security and fair revenue collection.

This paper follows a Study Report on Disruptive Technologies published by the WCO in 2019, which already pointed out the potential for such technologies to revolutionize in future customs procedures.

The new publication summarizes the findings of a survey conducted on WCO members to understand the level of implementation by Customs of these new technologies (including customs projects that have been launched and are based on their application), with a description of the benefits obtained and challenges encountered so far. The paper notes that 81 per cent of interviewed Customs have adopted specific IT strategies to guide automation and advances in the use of these technologies.

Regarding the examples of use of the above technologies in the East and Southern Africa (ESA) countries, interestingly the paper mentions the experience of Zambia Customs, that are currently using IoT to facilitate the acquittal of transit documents through QR codes, while Mauritius is evaluating a solution based on the exploitation of the blockchain technology for tracking Certificates of Origin. In this regard, already a comparative study on certification of origin   published by the WCO in 2020 pointed out how blockchain can support the origin certification and origin verification procedures. Indeed, the study notes that the common challenge with these procedures is that only the producer/exporter is in possession of the detailed and necessary information about the originating status of the goods, and this information is needed by the issuing authority in order to issue certificates of origin on an informed background and by the authority in charge of the subsequent verification of origin. In this case, the benefits of a blockchain-based system when issuing certificates of origin would be that it can help to prove that the certificate is authentic (i.e. that it has been delivered by the competent authority) and that it is has not been tampered with, noting that if blockchain traceability becomes more widely implemented, certification of origin could rely in future on blockchain data to be determined directly at the border, without the need for a certifying authority.