

UNCTAD Trust Fund for Trade Facilitation Negotiations Technical Note No. 3

Use of Customs automation systems

Background

Automated systems in Customs are one of the most important tools for simplifying international trade procedures. Automated Customs procedures replace the manual processing of Customs documents by the computer-assisted treatment of electronically-transmitted information. Use of automated Customs systems facilitates trade through the normalization of forms and documents, data standardization, simplification and computerization of Customs clearance procedures to accelerate the clearance of goods. It also strengthens Customs operational efficiency for control by implementing sound procedures and providing full audit trails and mechanisms. Automated Customs Systems provide governments with accurate and timely statistics on foreign trade and revenue.

As a complement to Customs reform, automation is an integral part of Customs modernization which also encompasses the alignment of Customs procedures and documents with international standards, conventions and other instruments. This is a critical review that will allow the introduction of international standards and recommended best practices and lead to efficient Customs reform.

The introduction of Customs Automation also stimulates use of information and communications technology (ICT) by other governmental departments and private sector stakeholders, whose activities involve Customs operations. They include various government agencies, importers, exporters, freight forwarders, carriers, Customs brokers, terminal operators, banks, and shipping and insurance agents.

Benefits

A modern, automated Customs administration brings substantial cost savings in trade and transport logistics. The electronic lodging of Customs declarations, document processing and goods clearance brings substantial time savings and predictability to all aspects of cross-border trade and limit the room for manoeuvre by traders and Customs officials alike to circumvent the system. The collection of taxes and duties is enhanced, as is the statistical database for fiscal and economic policy purposes. And finally, as part of the process of the automation of Customs, working relationships between Customs and the private sector improve. More specifically, benefits include:

- Faster electronic lodgement of Customs declarations, using Direct Trader Input (DTI) or other online connections;
- Reduced Customs clearance times and less physical examination of shipments owing to the use of risk management applications;
- Increased collection of duties and taxes and less fraud due to the uniform application of laws and regulations, the automated calculation of duties and taxes as well as built-in security;

- Enhanced capacity-building of staff and management in both Customs and the private sector (e.g. through training courses on simplified procedures and documents based on international norms, UN recommendations and WCO standards).

Implementation issues

Preconditions

A successful implementation of Customs automation systems requires that a number of conditions be met from the outset:

- Strong political backing of the reform and modernization processes by the government and Customs management;
- A transparent and collaborative approach by the project management to generate support from staff and external users, including brokers and agents (cooperation between the public and private sectors);
- A phased implementation of the Customs automation systems;
- The implementation of international conventions, standards and other instruments, including a national Customs tariff based on the Harmonized System and a documentation based on the United Nations Layout Key (UNLK); and
- An overall review and amendment of the Customs law and other related legal instruments to ensure compatibility with the new procedures, notably the electronic lodgement of clearance data and the introduction of a Single Administrative Document (SAD), where applicable.

Purpose and objectives

Customs' main functions are to control the cross-border flow of goods, ensure compliance with government rules and regulations, collect the duties and taxes due according to the national Customs tariff and tax code, and protect the country against the import of goods and materials intended for illegal purposes, and against terrorist activities.

This complex work can be facilitated through the use of computer systems consisting of comprehensive and integrated software packages with a number of functionalities or modules, such as:

- Cargo control, to monitor all movements of import, transit and export, and ensure that all goods are either duly cleared before release or a mechanism is in place that allows for the release prior to clearance;
- Declaration processing, to capture and process data for duty and tax collection;
- Payment and accounting, to register and account for payments by importers and exporters;
- Intelligence operations, to store and exchange data for risk profiling and enforcement, and risk management to select consignments bearing a higher risk of concealing duties and taxes, or those prone to smuggling and trafficking illegal substances and materials; and
- Statistics and reporting, to extract data for foreign trade statistics and to generate management reports for Customs.

Today, there are different software packages available often developed jointly by the public and private sector. The most widespread system is ASYCUDA, developed by UNCTAD since 1981 and implemented in more than 90 countries and territories.

ICT staff

Customs automation is a highly technical and complex project and ICT is very important in all phases of implementation. Usually an ICT Division within the Customs Authority will be responsible for the operation and support of all ICT systems. Often, international ICT experts are included in the initial stages to build the system and to train local computer staff in running and maintaining the project. Owing to this extensive training, their qualifications and IT capacities can increase their value on the job market to a point that they often are reluctant to stay beyond the implementation phase. Therefore, only competitive employment conditions will ensure their continuous support.

Equipment and maintenance

Upgrading and replacement of computer equipment is a reality that cannot be avoided. As early as possible, Customs administration should, therefore, make sure that required funds will be available at the appropriate time, for example through the collection of a user fee for each transaction, reflecting the actual and projected costs of systems upgrade and replacement.

Costs

Cost implications for the implementation and operation of an automated Customs system vary from country to country, depending on the initial state of ICT applications in the Customs administration (e.g. existing computer systems and reform programmes), the scope of the project and the level of locally available professional skills to support the modernization process.

Implementation costs are mainly linked to hardware requirements, software development or purchase, training and expert consulting needs, more precisely:

- Hardware requirements, i.e. the procurement of computers and related ICT equipment, and connectivity, i.e. access to the necessary telecommunication infrastructure. This component is directly dependent on the number of physical sites to be computerized (including ports, border and regional offices), the characteristics of the territory (mountainous terrains, archipelagos, inaccessible passes, etc.); and the refurbishment of buildings (Customs headquarters, regional offices and border posts) where automation components will be installed;
- Software requirements, i.e. the need for necessary computer programmes to transform documents into required formats and automate Customs transactions and procedures. The necessary software will either have to be purchased or developed as well as installed, often by national and/or international advisers and experts. In addition, the key software elements will have to be customized to reflect local conditions, such as tariff structure and content;
- Training requirements, that is costs linked to the installation, operation and maintenance of hardware and software. This will largely depend on the level of skills available and the resulting training needs of Customs staff and management.

In addition, costs and delays occur due to other factors including legislative reforms, or the need to build new offices or new telecommunication networks.

References and tools available

WCO Revised Kyoto Convention

The Revised Kyoto Convention of the World Customs Organization (RKC) includes Standards and comprehensive implementation Guidelines for the application of ICT in Customs, especially Chapter 7 and Specific Annexes. See www.wcoomd.org.

ASYCUDA

The Automated System for Customs Data Management is a computerised customs management system, developed by UNCTAD, which is fully integrated and covers the complete clearance process. The system handles manifests and customs declarations, accounting procedures, and transit and suspense procedures. ASYCUDA generates trade data that can be used for statistical economic analysis. It has been implemented in more than 90 countries and territories worldwide. A web-based version, ASYCUDA World, integrates state-of-the-art ICT technologies. See www.asycuda.org.

World Bank Customs Modernization Handbook

The Handbook provides operational guidelines to deal with issues such as Customs valuation, rules of origin, duty relief and exemptions, transit and security issues, and the use of ICT. See <http://go.worldbank.org/RZNRCHSZ30>.

The Global Facilitation Partnership for Transportation and Trade (GFP)

The Global Facilitation Partnership for Transportation and Trade (GFP) brings together the world's leading organizations and practitioners in trade and transport facilitation. It creates an open information and exchange platform on major new developments and all aspects of trade and transport facilitation. See www.gfptt.org.

UNCTAD

Various reports are available via <http://r0.unctad.org/ttl>. See in particular the document "ICT Solutions to Facilitate Trade at Border Crossings and in Ports", 2006 (TD/B/COM.3/EM.27/2). In order to subscribe to UNCTAD's Transport Newsletter please visit <http://extranet.unctad.org/TransportNews>.

Further UNCTAD Technical Notes

Further Technical Notes are available via <http://www.unctad.org/technicalnotes>. See in particular:

- Technical Note No. 13 (Simplification of trade documentation using international standards)

The *Technical Notes* have been produced by technical experts contracted by UNCTAD within the Trust Fund project "Capacity building in developing countries and least developed countries to support their effective participation in the WTO Negotiations Process on trade facilitation", financed by the Governments of Sweden and Spain. Their purpose is to assist Geneva- and capital-based negotiators to better understand the scope and implications of the various trade facilitation measures being proposed in the context of multilateral negotiations on trade facilitation. The opinions expressed in the Technical Notes may not necessarily coincide with those of the organization or the donors of the Trust Fund. For comments and enquiries please contact trade.logistics@unctad.org. All Technical Notes are available via <http://www.unctad.org/technicalnotes>.
