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FINANCIAL IMPLICATIONS OF THE INTRODUCTION  
OF THE ETIR INTERNATIONAL SYSTEM

INFORMAL INPUT PAPER

OF UNCTAD ASYCUDA PROGRAMME

TO THE 18TH SESSION OF THE UNECE INFORMAL AD-HOC EXPERT GROUP ON  
CONCEPTUAL AND TECHNICAL ASPECTS OF COMPUTERIZATION OF THE TIR PROCEDURE

Transmitted by UNCTAD



**INFORMAL INPUT PAPER  
OF UNCTAD ASYCUDA PROGRAMME  
TO THE 18<sup>TH</sup> SESSION OF THE UNECE INFORMAL AD-HOC EXPERT GROUP ON  
CONCEPTUAL AND TECHNICAL ASPECTS OF COMPUTERIZATION OF THE TIR PROCEDURE**

(Geneva, 9-10 March 2011)

**1. CUSTOMS AUTOMATION - COMPONENT OF CUSTOMS REFORM & MODERNIZATION PROGRAMS**

Automated systems for Customs clearance of goods are among the most important tools for simplifying international trade procedures. As a complement to Customs reform, automation is an integral part of Customs modernization. It also stimulates the increased use of ICT (Information and Communications Technology) by other governmental departments and private sector stakeholders, associated with Customs operations. These include various government agencies, importers, exporters, freight forwarders, carriers, Customs brokers, freight terminal operators, commercial and central banks, and shipping and insurance agents.

As part of overall Customs reform and modernization programmes, automated Customs procedures replace the manual processing of Customs documents by computer-assisted treatment of electronically-transmitted information. Before this can happen, documents and Customs procedures have to be reviewed and aligned with international standards, conventions and other instruments. This is the critical exercise that allows Customs reform and modernization to become instrumental for the introduction of international standards and recommended best practices.

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 ;
- transparent and collaborative approach ;
- phased implementation of the Customs automation systems;
- implementation of international conventions, standards and other instruments;
- review/amendment of legal instruments to ensure compatibility with new procedures.

Customs automation process requires a highly technical and complex project to be put in place. In such a project, the ICT component remains very important in all phases of the 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 involved in the initial stages to build the system and to train local ICT staff in operating and maintaining the Customs IT system. Owing to this extensive training their qualifications and IT capacities can increase their value on the job market to a point that these specialists often are reluctant to stay attached to the Customs Administration beyond the project

implementation phase. Therefore, only competitive employment conditions will ensure their continuous support to the long term operation and maintenance of the system installed.

The periodic upgrading and replacement of computer equipment is also 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, reflecting the actual and projected costs of systems upgrade and replacement.

*Cost implications* for the implementation and operation of an automated Customs system vary from country to country; these cost will depend on the initial state of use of ICT in the Customs administration (e.g. existing computer systems and reform programs), 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 requirements or purchase, training and expert consulting needs, more precisely:

- Hardware requirements, i.e. the procurement of computers and related ICT equipment, and connectivity (e.g. 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 development requirements, i.e. the need for necessary computer programs 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 training of local staff on 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.

## **2. UNCTAD ASYCUDA - CUSTOMS COMPUTERIZATION LESSONS LEARNED AND IMPLEMENTATION COSTS**

The ASYCUDA (Automated System for Customs Data) computerized customs management system, developed by UNCTAD, is fully integrated and covers all Customs procedures and regimes, including accounting and risk-management. ASYCUDA generates accurate and comprehensive trade data that can be used for statistical economic analysis.

ASYCUDA has been implemented and is operational in more than 90 countries and territories worldwide.

The latest version of ASYCUDA, ASYCUDA 4G (ASYCUDAWorld), is a fully-configurable integrated system, which allows for 100% electronic declaration of goods, ensures control and

monitoring of national and regional transit, includes a risk-management module, and supports Integrated Border Management operations. ASYCUDAWorld can be implemented on any ICT platform (operating system, RDBMS/database).

The implementation of the ASYCUDAWorld relies upon partnership with national Customs administrations and full transfer of ownership to the beneficiary country, i.e:

- The system, including the source code, is provided to the beneficiary country;
- The national team (customs and/or private company selected by the Government/ Customs) are provided with necessary training courses and materials, including:
  - ASYCUDAWorld technical training: technical installation, configuration, operation, administration and maintenance of the system;
  - ASYCUDAWorld functional training: functional installation, configuration, operation, administration and maintenance of the system;
  - ASYCUDAWorld technology: understanding the ASYCUDAWorld source code, modification of the source code, development of new functions/modules (e-documents) using templates provided by the system etc.

The comprehensive training of the national team is designed to create full self-sufficiency in the beneficiary organization/country (independence of external assistance, including from UNCTAD).

- All ASYCUDAWorld implementation activities are carried out by the trained national team supported by the UNCTAD experts/consultants, to foster self-sufficiency in the beneficiary organization/country in the administration, maintenance and further development of the national system.

#### ASYCUDA implementation - costs

In the framework of a technical assistance project, UNCTAD provides the beneficiary countries, on request and free of charge, with the ASYCUDAWorld software (including the source code) and with the associated technical and functional documentation.

The main costs of an ASYCUDAWorld project include

- the costs of UNCTAD experts/consultants who provide technical assistance, support and training to the beneficiary organization during the prototyping, testing, piloting and rollout of the system;
- the cost of UNCTAD experts/consultants involved in specific software developments, if applicable;
- the costs of international and local travels (DSAs and tickets) organized in the framework of the project.

All costs are calculated on cost-recovery (non-commercial) basis, at UN rates. All unspent funds are returned by UNCTAD to the donor at the end of the project.

#### Cost of follow-up support

All subsequent releases of the ASYCUDAWorld software (including the source code) as well as the corresponding updates of the technical and functional documentation, and remote technical assistance and support are also provided by UNCTAD to the beneficiary countries free of charge.

There are no license fees for the use of the system.

### 3. UNCTAD ASYCUDA/TIR PROJECT

UNCTAD ASYCUDA is an evolving system and every opportunity is being used to enrich the system by adding new functions to increase the benefits for the ASYCUDA-user countries.

In an effort to streamline Customs transit procedures, in general, and the TIR transit operations, in particular, the IRU decided to support the integration between the TIR-EPD and Real-time SafeTIR functionalities and the UNCTAD ASYCUDAWorld system.

Such an integration should contribute to a traceable transit clearance processing mechanism using a Document Tracking Utility available for all agents, adding to the DTI (Direct Trader Input) operation in ASYCUDA-user countries.

The ASYCUDAWorld/TIR application should also constitute a step towards full automation of the TIR transit operations, including of risk-management and selectivity in the near future.

The project is being implemented in two phases: (1) technical integration between the new IRU TIR functionalities and the standard UNCTAD ASYCUDAWorld system; and (2) piloting of ASYCUDAWorld/TIR in two ASYCUDAWorld -user countries: the Republic of Moldova and Georgia.

A major component of the project is the technical and functional training of the national Customs and trade staff in the pilot ASYCUDA/TIR-user countries, with the view to ensure their ownership of the system and to create self-sufficiency (independence from external technical assistance).

Currently, a prototype of the ASYCUDA/TIR system has been successfully implemented nationwide in Moldova and the system is scheduled to be implemented nationwide in Georgia around mid April 2011.

The cost of the development of the integrated ASYCUDA/TIR version was around 200,000 USD, of which the full integration of TIR-EPD represented around 125,000 USD.

It is worth to highlight that the cost of migration of the ASYCUDAWorld system operational in a beneficiary country to the ASYCUDA/TIR version depends upon the specific conditions (size of the organization/ number of Customs offices, number of staff to be trained, availability of national training structures/resources etc).

In the specific cases of the two pilot countries (Moldova and Georgia) the costs of implementation of the ASYCUDA/TIR system at national level can be estimated at around 80,000 USD in each country. This includes:

- costs related to the provision of technical and functional training, and of technical assistance during the migration, piloting and roll-out at national level, and
- costs of travel of UNCTAD experts/consultants to the country.

These are the only costs entailed by the implementation of ASYCUDA/TIR (including TIR-EPD) in these two countries.

As indicated in the previous section, the beneficiary organizations (i.e. Moldovan Customs Service and, in the very near future, Georgian State Revenue) are now fully capable to operate, administrate and maintain the system without any external support.

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