UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

2025 ASYCUDA report

The New Generation of ASYCUDA for Efficient, Secure and Sustainable Trade

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Foreword

Trade facilitation is vital for boosting international trade and advancing sustainable development. The ASYCUDA Programme supports more than 100 countries and territories in strengthening institutions and creating modern, efficient, and sustainable trade environments. This report not only highlights the Programme's achievements in 2025 but also illustrates how it continues to evolve to meet emerging needs.

The results presented here demonstrate how countries have reduced customs clearance times through digital uptake and improved coordination among agencies. Customs digitalization, automation of cross-border procedures, and enhanced regulatory coherence have become indispensable for ensuring secure and transparent trade systems. The ASYCUDA Programme has provided practical solutions that help countries strengthen their institutions, increase customs revenue collection, and advance structural reforms. For example, Iraq has increased its custom revenues by 128 per cent from 2023 to 2024, or in Kazakhstan, the processing time transit declarations was shortened by 67 per cent between 2017 and 2024. These outcomes have been made possible through targeted technical assistance and long-term capacity-building initiatives.

Equally important, the Programme continues to innovate and embrace new technologies. The ASYCUDA New Generation, built on a cloud-based framework, enables data-driven decision-making and ensures long-term interoperability across systems and borders. It promotes the standardization of trade data and processes while aligning closely with national public-sector development priorities. ASYCUDA's scope now extends beyond customs to include logistics management, environmental regulation, and humanitarian response. Through sustained investment in innovation and strengthened partnerships with both public and private stakeholders, the Programme remains at the forefront of trade digitalization.

We are committed to ensuring that ASYCUDA remains a trusted partner for member States – a message reaffirmed at the sixteenth UNCTAD Ministerial Conference in October 2025. Together and with this Programme, we are laying the foundation for more efficient, secure, and resilient trade systems.

Mr. Pedro Manuel Moreno,
Deputy Secretary-General, UNCTAD
Chair, ASYCUDA Advisory Board

Abbreviations

ACF	ASYCUDA Cloud Framework
AEO	Authorized Economic Operator
AfDB	African Development Bank Group
AI	Artificial Intelligence
API	Application Programming Interface
ASYCUDA	Automated System for Customs Data
ASYHUB	ASYCUDA Data Exchange and Integration Platform
ASYPM	Automated System for Performance Measurement
ASYREC	ASYCUDA Relief Emergency Consignment Platform
ASYSW	ASYCUDA-based Electronic Single Window for Trade
CARICOM	Caribbean Community
CARSC	Customs Automation Regional Support Centre
CBRA	Cross-Border Regulatory Agencies
CDS	Customs Declaration System
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMESA	Common Market for Eastern and Southern Africa
eCITES	ASYCUDA Electronic Permit System for CITES Compliance
ECOWAS	Economic Community of West African States
eSW	Electronic Single Window
EU	European Union
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
ICT	Information and Communication Technology
IMPACT	Improving Pacific Islands Customs and Trade project
IPPC	International Plant Protection Convention
IRU	International Road Transport Union
IT	Information Technology
LDC	Least Developed Country

LLDC	Landlocked Developing Country
ML	Machine Learning
MBS	Malawi Bureau of Standards
MOU	Memorandum of Understanding
MRA	Malawi Revenue Authority
NCTS	New Computerized Transit System
PACER Plus	Pacific Agreement on Closer Economic Relations
PGA	Partner Government Agency
PRISE	Pacific Regional Integration Support Project
P-SIDS	Pacific Small Island Developing States
SDGs	Sustainable Development Goals
SIDS	Small Island Developing States
SIGMAT	Regional Customs Network for Transit Trade (ECOWAS project)
TFA	Trade Facilitation Agreement
TIR-EPD	International Road Transport Electronic Pre-Declaration
UNCTAD	United Nations Conference on Trade and Development
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNTF	UN Global Survey on Digital and Sustainable Trade Facilitation
UPU	Universal Postal Union
WCO	World Customs Organization
WTO	World Trade Organization
XML	Extensible Markup Language
ZIMRA	Zimbabwe Revenue Authority

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103 ASYCUDA COMMUNITY

37 LDCs / 24 LLDCs / 41 SIDS

AMERICAS AND THE CARIBBEAN ISLANDS

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I. Overview

a. UNCTAD16

The sixteenth session of the United Nations Conference on Trade and Development (UNCTAD16), held in Geneva in October 2025, reaffirmed that trade remains a central driver of structural transformation and sustainable growth in a fragmented global economy. Convened under the theme "Shaping the Future: Driving Economic Transformation for Equitable, Inclusive and Sustainable Development," the Conference underscored the need to reconfigure global trade governance for a world marked by technological disruption, fiscal constraints, and geopolitical uncertainty.

ASYCUDA anchors customs reform within UNCTAD16's blueprint for **equitable, inclusive digital transformation.**

Member States adopted the Geneva Consensus, calling for a more effective multilateral trading system capable of addressing asymmetries in productive capacities, investment, and access to digital infrastructure. The outcomes placed renewed emphasis on leveraging technology and innovation to boost competitiveness, transparency and efficiency across global value chains. Within this context, the modernization of customs administrations and the digitalization of of cross-border procedures emerged as critical enablers of inclusive and resilient development. The Conference outcomes provide a renewed mandate for ASYCUDA to contribute to the objectives set out under the new Transport and Logistics article.

The ASYCUDA Programme, as UNCTAD's largest technical assistance initiative, was highlighted throughout the Conference as a concrete example of how digital public infrastructure can translate development objectives into measurable outcomes. During the UNCTAD16 parallel event, "The New Generation of ASYCUDA Technology for Efficient, Secure and Sustainable Trade," ministers, customs directors-general and development partners examined the Programme's contribution to reducing transaction costs, enhancing revenue mobilization and enabling trade-led growth. The discussions demonstrated how ASYCUDA's latest innovations, notably the ASYCUDA New Generation technology and software suite, are reshaping the digital foundations of cross-border trade management.

In line with the priorities set out in the Geneva Consensus outcomes, the Programme continues to advance a pragmatic, country-driven approach to trade digitalization. Its focus on open-source, interoperable, and scalable solutions supports governments in modernizing trade and customs operations, improving data governance, and strengthening institutional resilience. These efforts are particularly transformative, especially for LDCs, LLDCs and SIDS. They help participating economies diversify exports and integrate more deeply into regional and global value chains, while strengthening resilience to external shocks, including those related to climate change and supply chain volatility.

Digitally enabling revenue, transparency, and reform, **ASYCUDA unlocks economic potential in vulnerable economies.**

As the world economy enters a new phase of structural realignment, ASYCUDA's work embodies the economic principles reaffirmed at UNCTAD16: that efficiency, inclusiveness and sustainability are no longer competing policy objectives, but interdependent pillars of future trade development. The 2025 ASYCUDA Yearbook captures these developments comprehensively, documenting the Programme's milestones, partnerships and country-level achievements throughout the year, including its pivotal role at UNCTAD16.

At a time when external factors are redefining global trade, ASYCUDA's technological innovation and support for digital customs and trade facilitation systems have become even more critical. The deployment of ASYCUDA New Generation, including the next generation of the ASYCUDA flagship solution, the Single Window for Trade components and enhanced cloud-native platforms such as ASYHUB and ASYREC, aim to integrate artificial intelligence, real-time data analytics and seamless connectivity across trade stakeholders. These innovations directly contribute to the UNCTAD16 goal of harnessing frontier technologies for inclusive development, while also enabling countries to meet their obligations under global trade agreements such as the WTO Trade Facilitation Agreement.

ASYCUDA's cutting-edge platforms are equipping countries to meet **trade facilitation goals through AI-driven**, interoperable, and cloud-native solutions.

As UNCTAD16 seeks to accelerate progress across its four key elements: economic diversification, sustainability, development financing and multilateralism, the ASYCUDA Programme continues to be a cornerstone of UNCTAD's common good operational response. Moving forward, ASYCUDA will further scale its impact by supporting regional and national digital transformation strategies, promoting regional integration through interconnectivity of customs and trade systems, and responding to member States' demand for more integrated, automated and sustainable trade facilitation solutions. The Programme's future direction remains firmly grounded in the principle of country ownership, driven by the needs of customs administrations and public authorities, and aligned with the broader vision of shaping a more inclusive and resilient global trading system.

b. Catalogue of ASYCUDA Solutions

The ASYCUDA Programme has developed a comprehensive suite of digital customs and trade facilitation solutions that are deployed at the request of member States. These solutions respond to the diverse operational, regulatory and institutional needs of customs administrations and trade stakeholders worldwide. Built on fit for purpose, robust and scalable technology, they are tailored to support national reforms, improve transparency and increase the efficiency of border operations.

1. ASYCUDAWorld

ASYCUDAWorld is the Programme's flagship platform and represents the fourth generation of its customs management system. It is currently operational or under implementation in 100 of the 103 ASYCUDA user countries and territories. Designed to automate and integrate core customs processes, ASYCUDAWorld continues to evolve through regular updates. The most recent release, version 4.4, introduced enhanced functionalities that further digitalize clearance procedures. A forthcoming version, 4.5, is expected in the second half of 2025 and will incorporate AI and machine learning capabilities and additional innovations. Several national customs systems have also been developed using ASYCUDAWorld technology, including the New Computerized Transit System (NCTS) in Georgia and the Republic of Moldova, designed to facilitate regional transit with the European Union, and Kazakhstan's ASTANA-1 platform, developed as a comprehensive national customs management system.

2. ASYCUDA New Generation Customs Management Software

ASYCUDA New Generation Customs Management Software, the fifth and most advanced iteration of UNCTAD's flagship software, is now available. Developed on the ASYCUDA Cloud Framework (ACF), it features a modular, web-based, and cloud-native architecture designed to enhance scalability, user experience, and interoperability across national and international trade systems. This latest version delivers substantial improvements, including more flexible configuration, integrated real-time system monitoring, and advanced integration capabilities with partner government platforms. In 2024, national implementation projects were launched in Angola and Georgia, marking the first deployments of ASYCUDA New Generation. Barbados, Jamaica, and Zambia have also formally expressed interest in adopting the system. A comprehensive overview of ASYCUDA New Generation and its enabling architecture, the ACF, is presented in Chapter IV.

With over **100 active deployments, ASYCUDAWorld** continues to evolve as a global standard in customs automation, while ASYCUDA New Generation introduces next-level scalability and system intelligence.

3. Single Window for Trade

The ASYCUDA Single Window for Trade concept builds upon ASYCUDA technology and is currently operational or being developed in thirteen countries. These include Barbados, Burundi, Comoros, Jamaica, Kazakhstan, Rwanda, Saint Vincent and the Grenadines, Timor-Leste, Sao Tome and Principe, Turkmenistan, Uganda, Vanuatu and Zimbabwe. ASYCUDA has published a dedicated roadmap to guide governments in the implementation of Single Window for Trade solutions. This publication includes strategic guidance, practical recommendations and implementation methodologies aligned with best practices and international standards. The roadmap also complements the World Customs Organization's Single Window Compendium and reflects the Programme's extensive experience in delivering such solutions globally. The evolution of Single Window for Trade under the new ASYCUDA Cloud Framework is described in Chapter IV, Section b.2, while highlights from recent deployments are detailed in Chapter V, Section a.

4. ASYHUB

ASYHUB is a cloud-native platform that facilitates the electronic exchange and pre-arrival and pre-departure processing of advance data for maritime, postal and express consignments. It consists of three standalone modules known as ASYHUB Maritime, ASYHUB Postal and ASYHUB Express. These modules enable customs administrations to receive pre-arrival cargo information, streamline logistics and enhance risk assessment. ASYHUB has been implemented or is under implementation in eight countries, namely Albania, Cambodia, Jordan, Madagascar, Mongolia, Sri Lanka, Vanuatu and Venezuela. Notably, Mongolia is implementing ASYHUB without operating ASYCUDAWorld. More details on ASYHUB's technical features and deployment are provided in Chapter IV, Section b.2 and Chapter V, Section c.2. Additional information is available at www.asyhub.org.

5. ASYPM

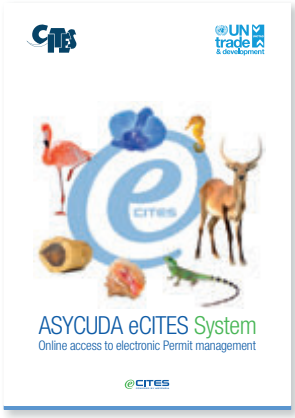
The Automated System for Performance Measurement (ASYPM) was developed in 2014 in collaboration with the World Customs Organization. It supports evidence-based management by generating performance indicators that highlight inefficiencies and monitor the effectiveness of customs procedures. ASYPM is in the phase of implementation in sixteen countries, including Angola, Bangladesh, Barbados, the Democratic Republic of the Congo, Eswatini, Gabon, Jamaica, Lesotho, Liberia, Madagascar, Mauritania, Rwanda, Suriname, Venezuela, Zambia and Zimbabwe.

6. ASYREC

ASYREC is a digital platform designed for the coordination of international relief consignments. Developed initially in cooperation with the United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA), ASYREC supports customs administrations and humanitarian relief providers during humanitarian emergencies by facilitating the coordination between stakeholders for the clearance of relief consignments. It is currently operational

or under implementation in Afghanistan, Jamaica, Nepal and Vanuatu. ASYREC's recent activities in the Pacific region are described in Chapter V, Section c.3, while its evolution under ACF technology is discussed in Chapter IV, Section b.4. Further details are also available at www.asyrec.org.

7. eCITES



eCITES was launched in 2018 in collaboration with the CITES Secretariat of the United Nations Environment Programme. It is a cloud-based electronic permit system that manages the application, issuance and reporting process for the international trade in endangered species of flora and fauna. The system is currently operational in Mozambique, which is not an ASYCUDAWorld user, and Sri Lanka. Vietnam, which is not currently an ASYCUDAWorld user, completed a feasibility study in partnership with the ASYCUDA Programme. The system's evolution under the ASYCUDA Cloud Framework is covered in Chapter IV, Section b.2. More information can be found at www.ecites.org.

Through these systems, ASYCUDA delivers a unified portfolio of digital trade facilitation solutions that reflect international best practices and standards, support institutional capacity-building and provide member States with the technological foundations to modernize their customs operations and better integrate into the global trading system.

c. ASYCUDA's Regional Footprint and Support Ecosystem

The ASYCUDA Programme operates in 103 countries and territories, including many Least Developed Countries (LDCs), Landlocked Developing Countries (LLDCs), and Small Island Developing States (SIDS). To ensure effective and timely support for

ASYCUDA's regional centres deliver localized technical support, accelerating system deployment and enabling regionally **tailored customs solutions**.

the implementation, maintenance, and modernization of its systems and tools, the Programme has established a strong network of regional and data centers located across five continents. These regional hubs serve not only as points of technical and policy support but also as key enablers of regional integration and knowledge-sharing.

Each ASYCUDA regional centre provides tailored assistance to regional economic communities such as CARICOM, COMESA, Eastern Europe and Central Asia, South/Southeast Asia, and the Pacific. This includes supporting both regional and national deployments of ASYCUDA systems and tools, including technical guidance on the implementation, upgrade, and operationalization of existing platforms, as well as the transition to ASYCUDA New Generation where applicable. Regional centres also deliver comprehensive functional and technical training to national governments and customs officials and play a key role in designing and developing customized solutions that respond to the evolving requirements and formal requests of regional blocs and member States.

The figure below shows the locations of ASYCUDA's regional and data centres.

Figure 1
ASYCUDA's regional centres and data centres

In the Caribbean, the ASYCUDA Regional Centre located in Port of Spain, Trinidad and Tobago, led the development and launch of the Electronic Manifest Management System for Advance Cargo Information. This platform provides CARICOM member States with

a robust and integrated mechanism for data and intelligence-sharing, simplifies cargo reporting requirements, supports harmonized legislative processes, and enhances overall trade compliance. The system operates through a centralized web-based portal, which receives electronic submissions of cargo manifests and relays them seamlessly to the relevant ASYCUDAWorld instance at the destination customs authority. This is accompanied by an automated risk assessment report to facilitate early targeting and clearance preparation.

In CARICOM and COMESA, **ASYCUDA centres** support **digital cargo systems and regional trade portals**, enhancing compliance and data-sharing.

In the Common Market for Eastern and Southern Africa (COMESA), the ASYCUDA Regional Support Centre based in Lusaka, Zambia, and UNCTAD's Trade Facilitation Branch have been instrumental in developing both regional and national Trade Information Portals. These portals offer traders in COMESA member States up-to-date information on tariffs, applicable taxes, customs procedures, and regulatory requirements. The Centre also conducts extensive regional training programmes for customs officials on the use and configuration of ASYCUDAWorld, promoting consistency and interoperability across the region's customs administrations.

The ASYCUDA Centre of Excellence in Gibraltar has contributed significantly to research and development as well as the creation of specialized tools. These include a phytosanitary certification module, an electronic postal declaration facility, and enhancements for processing express courier consignments through ASYCUDAWorld. The Centre also actively participated in international standard-setting efforts and contributed to the drafting of trade-related recommendations. Notably, it supported the development of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) Recommendations No. 44 on Cross-border Facilitation Measures for Disaster Relief and No. 47 on Pandemic Crisis Trade-Related Response. It also contributed to the World Customs Organization's Revised Kyoto Convention, particularly Annex J5 which addresses emergency situations and humanitarian assistance.

In South/Southeast Asia, the ASYCUDA Support Mechanism Centre in Kuala Lumpur, Malaysia, holds the distinction of being the first ASYCUDA Regional Centre, established in 1994–1995 at the request of participating countries. With close to three decades of uninterrupted service, the Centre has become an integral pillar of ASYCUDA's regional presence. It provides comprehensive technical and functional support to national administrations, facilitates the deployment and maintenance of ASYCUDA systems, and contributes to the harmonization of trade facilitation practices across the subregion. Through targeted training programmes and continuous advisory services, the Centre reinforces institutional capacity, supports implementation efficiency, and strengthens regional cooperation in customs digitalization and trade modernization.

In South/Southeast Asia and the Pacific, **regional centres strengthen capacity** through hands-on training, harmonized practices, and digitalized relief processing.

The ASYCUDA Regional Centre for the Pacific, located in Suva, Fiji, supports all 15 Pacific Small Island Developing States. It has played a key role in the rollout of ASYCUDAWorld across the region. In collaboration with the Oceania Customs Organization, the Centre has organized and conducted regional training workshops on the Harmonized System and customs valuation. More recently, it hosted two regional workshops focused on digitalized relief consignments processing and clearance, as well as the deployment and operation of the ASYREC platform. The Centre also runs a long-standing fellowship programme, through which staff from participating customs administrations are selected annually to work at the Centre for a 15-week hands-on placement. This initiative enables fellows to gain practical experience in technical support and solution delivery while fostering deeper collaboration across the region.

All ASYCUDA regional centers, with the exception of the one in Gibraltar, are equipped with fully operational data centers. These facilities have become an integral component of ASYCUDA's service delivery model. They support a wide range of business applications and provide secure services such as storage, data backup, source code versioning, and recovery. They also host national ASYCUDAWorld servers when requested, and offer essential productivity tools including regional trade portals, e-learning platforms, collaborative workspaces, email services, issue-tracking systems, and document-sharing platforms. Indeed, cloud computing provides developing countries flexibility in deploying the required ICT infrastructure and addresses domestic limitations to operate ASYCUDA systems and tools. It delivers on-demand computing resources that suit each customs administration's needs. A regional cloud computing approach leads to economies of scale, namely higher computing capacity at lower shared costs for participating administrations. In the Pacific, eight national ASYCUDAWorld production systems are hosted at the ASYCUDA Regional Centre in Suva, Fiji, while the Mozambique and Sri Lanka eCITES systems are also hosted by UNCTAD. These data centers play a central role in ensuring the operational continuity, resilience, and reliability of ASYCUDA systems globally.

d. ASYCUDA's Technological Evolution

In an increasingly complex global trade environment, customs administrations are seeking digital solutions that deliver on the core objectives of efficiency, security and sustainability. To meet these evolving demands, the ASYCUDA Programme has embarked on a forward-looking technological transformation that strengthens its position as a provider of common good digital solutions and a trusted partner for customs digitalization and trade facilitation. This transition is not a departure from ASYCUDAWorld, which remains the cornerstone of customs automation in over 100 countries, but an expansion of the Programme's capabilities to respond to recent institutional, technological and policy shifts and, more importantly, member States' demands.

At the heart of this evolution lies the ASYCUDA Cloud Framework (ACF), an open-source, cloud-native architecture developed entirely by UNCTAD's ASYCUDA Programme. The ACF replaces the need for commercial middleware, thereby eliminating licensing costs and enabling greater national ownership of systems. Its design allows governments to implement, maintain and scale their solutions with greater independence, making the overall infrastructure more accessible, cost-effective, and sustainable.

Built on **ACF, ASYCUDA New Generation** combines **open-source agility with AI-powered tools** to deliver secure, scalable, and future-ready trade systems.

Built on ACF, the ASYCUDA New Generation represents the fifth generation of ASYCUDA's customs software. It retains all the core functionalities of ASYCUDAWorld while introducing substantial enhancements in system performance, automation and configurability. Fully web-based and modular by design, ASYCUDA New Generation can be tailored more easily to evolving national legislation, institutional structures and operational workflows. It also introduces advanced analytics, real-time dashboards, cloud-based deployment models and enhanced risk management capabilities aligned with the WCO SAFE Framework and the WTO Trade Facilitation Agreement. With intuitive user interfaces and streamlined processes, national administrations are equipped to implement reforms faster, monitor performance in real time and respond with greater agility to emerging trade and compliance challenges.

Beyond ASYCUDA New Generation, the ASYCUDA Cloud Framework (ACF) also supports a suite of next-generation trade facilitation tools developed under the Programme. These include ASYHUB, a platform that enables the pre-arrival and pre-

departure exchange of data across maritime, postal, and express consignments; ASYREC, a coordination mechanism for managing humanitarian relief consignments during crises; and eCITES, an electronic permit system for monitoring and regulating international trade in endangered species. All of these solutions now operate on the same open-source, interoperable, and secure architecture that underpins ASYCUDA New Generation, enabling governments to build integrated digital ecosystems that connect agencies, streamline procedures, and facilitate cross-border cooperation.

This re-engineered ecosystem is guided by a set of clear business and technical principles. On the business side, the Programme emphasises availability, transparency, adaptability, and cooperation among institutions. On the technical side, the focus is on system performance, modularity, usability and resilience, all aligned with global standards and operational best practices. By creating systems that are more user-centric, interoperable, and secure, ASYCUDA enhances the capacity of customs administrations to meet both current and emerging challenges.

A key enabler of this transformation is the integration of artificial intelligence (AI) and machine learning (ML). These technologies are already being embedded within ASYCUDA solutions to improve risk assessment, detect anomalies, and support informed decision-making. Automated dashboards and predictive analytics help administrations prioritise inspections, manage resources efficiently, and gain real-time insights into system performance and trade trends.

ASYCUDA's technological evolution represents not merely a software upgrade, but a paradigm shift towards next-generation digital governance in customs, trade, and logistics. With ACF and ASYCUDA New Generation, the Programme offers countries the ability to implement tailored, sustainable, and future-ready digital systems while preserving continuity with their existing investments. By combining its deep operational expertise with cutting-edge technologies, ASYCUDA is reaffirming its commitment to building secure, efficient, and inclusive trade environments for development.

ASYCUDA's global data centres ensure operational continuity and resilience, anchoring the Programme's **worldwide service delivery model.**

23.1
million $
Funding in 2024

27
million $
Expenditure in 2024

66 Ongoing Projects

II. Governance & Financing

a. ASYCUDA Governance

Established in 2022, the ASYCUDA Advisory Board (AAB) provides high-level strategic oversight and technical direction to ensure the Programme's evolution remains aligned with the priorities of member States, shifts in global trade, and UN institutional reform. Chaired by UNCTAD's Deputy Secretary-General, the Board convened its sixth session in June 2025 at the Palais des Nations to assess implementation of the 2022–2025 Strategic Plan, monitor progress on the deployment of ASYCUDA New Generation platform, and endorse a post–UNCTAD16 meeting to define the Strategic Plan for 2026–2029.

From left to right: H.E. Mr. Matthew Anthony Wilson, Ambassador, Permanent Mission of Barbados, Mr. Renaud Massenet, Chief, ASYCUDA Programme, Division on Technology and Logistics, UNCTAD, H.E. Ms. Davaasuren Gerelmaa, Ambassador, Permanent Mission of Mongolia, Mr. Pedro Manuel Moreno, Chair of the ASYCUDA Advisory Board and Deputy Secretary-General, UNCTAD, Mr. Daniel Holz, Second Secretary (Economic Affairs), Permanent Mission of the Federal Republic of Germany, Mr. Paulin Zambelongo, Country Programme Coordinator, EIF, Executive Secretariat, WTO, Ms. Elisabeth Tuerk, Director, Economic Cooperation and Trade, UNECE.

Comprising representatives from Barbados, Canada, Germany, Mongolia, the ICC, UNECE, WTO and WFP, the AAB brings a broad spectrum of expertise on trade facilitation, customs modernization, and humanitarian logistics. In 2025, it provided advisory input on AI integration, country-owned and scalable technical assistance, and enhanced outreach. The Board also plays a critical role in ensuring transparency, aligning donor expectations, and consolidating ASYCUDA's status as a global digital public good.

b. ASYCUDA Financing

ASYCUDA continues to be UNCTAD's largest technical assistance programme, accounting for 47 per cent of its technical cooperation delivery in 2024.

In 2024, ASYCUDA spent $27 million in staff and consultancy costs at headquarters and in the field (72 per cent), official travel (11 per cent), programme support costs (10 per cent) and other costs such as hardware and equipment (7 per cent). These disbursements stem from 2024 and previous years projects commitments.

In 2024 alone, ASYCUDA generated $23.1 million through 32 new technical assistance projects and extensions. Projects' scopes varied from the implementation and enhancement of ASYCUDAWorld, Single Window, ASYHUB for the pre-arrival/departure processing of consignments, ASYREC for the automated relief of emergency consignments, to eCITES for the monitoring and licensing of international trade of endangered species. 2 technical assistance projects in Angola and Georgia involve the implementation of ASYCUDA's next generation of customs management system.

47%
of UNCTAD
technical cooperation
delivery in 2024.

The 32 projects and extensions signed in 2024 are funded by the Governments themselves, the African Development Bank, CITES, COMESA, Expertise France, SPREP (Secretariat of the Pacific Regional Environment Programme), UNDP and UNEP. 54 per cent of new projects and extensions signed in 2024 are self-funded by beneficiary governments.

All 2024 projects and extensions are listed in the table below.

Table 1
Projects and Extensions 2024

Country/ Territory	Project Title	Donor	Category[a]
Afghanistan	Cross-sectoral Cluster Survey of Afghanistan's Micro, Small, and Medium-sized Enterprises (MSMEs)	Government / UNDP	N
	UNDP-UNCTAD UN2UN Agreement for Emergency Assistance to Support ASYCUDA Exemptions System in Afghanistan	UNDP	E
	UNDP-UNCTAD UN2UN Agreement for Emergency Assistance to Support ASYCUDA Exemptions System in Afghanistan	UNDP	E
	UN2UN Agreement for support of humanitarian aid flow to Afghanistan/SHAFA (ASYCUDA Exemptions System)	UNDP	N
	Cross-sectoral Cluster Survey of Afghanistan's Micro, Small, and Medium-sized Enterprises (MSMEs)	Government / UNDP	E
Albania	Maintenance of Operational ASYCUDAWorld System of Albania Customs Administration in 2024–2026	Government	N
Angola	ASYCUDA New Generation Computerization of Customs Procedures	Government	N
Aruba	ASYCUDAWorld Support to the Aruba Customs Department	Government	E
Caribbean Netherlands	ASYCUDA World Support to the Tax Administration of the Caribbean Netherlands	Government	E
Curaçao	ASYCUDAWorld Support to the Customs Department of Curaçao	Government	E
Democratic Rep. of the Congo	Strengthening the DGDA's electronic environment	Government	E
Djibouti	Facilitating Trade in Djibouti Through the Implementation of a National Trade Information Portal	Government / World Bank	N

Country/ Territory	Project Title	Donor	Category[a]
Equatorial Guinea	Implementation of Phase II of the ASYCUDA software outside Malabo in the Republic of Equatorial Guinea	AfDB	N
Eritrea	Implementation of ASYCUDAWorld	UNDP	N
Eswatini	Upgrading of ASYCUDAWorld Eswatini	Government	N
Gabon	Strengthening the implementation of ASYCUDAWorld Gabon	AfDB	N
	Assistance project to strengthen the implementation of ASYCUDAWorld	Government	N
Georgia	Development of Georgia Revenue Service Digital Customs Platform	Government	N
Gibraltar	Upgrade of ASYCUDAWorld system operational at HM Customs Gibraltar	Government	N
Guinea	Automation of the ETNM (study of the time required for release) in ASYCUDA	Expertise France	N
Guinea-Bissau	ASYCUDAWorld migration, Customs Reform and 1st phase of Single Window	AfDB	N
International	Electronic Approaches to the Notification and Movement Documents of the Basel Convention	UNEP	N
Jordan	JORDAN Implementation of ASYCUDAWorld Authorized Economic Operators module	Government	N
Kazakhstan	Technical support of ASTANA-1 System of State Customs Committee of the Ministry of Finance of Kazakhstan	Government	E
Madagascar	Support of the Customs of Madagascar	USAID	N
New Caledonia	ASYCUDAWorld support in New Caledonia	Government	R
Niger	Enhancements and Training on ASYCUDAWorld	Government	E
Papua New Guinea	eCITES Feasibility Study in Papua New Guinea	SPREP	N
Regional	Capacity Building for EAC Trade Portals Connectivity	AfDB	N
Sao Tome and Principe	ASYCUDAWorld Upgrade in Sao Tome and Principe	AfDB	N
Vietnam	Support the Planning and Implementation of the e-Permitting System for CITES in Vietnam	CITES	N

[a] N = New Project, E = Extension, R = Renewal

III. Impact

The Implementation of ASYCUDA systems and solutions continues to bring significant and measurable benefits in diverse national contexts. Improvements have been recorded in areas such as reduced processing times for trade procedures, expanded export performance, increased customs revenue, strengthened institutional resilience through digital transformation. These impacts illustrate the flexibility and scalability of ASYCUDA's solutions in addressing the evolving needs of developing and emerging economies. They encompass a broad spectrum of benefits, from the acceleration of exemption and transit processing to enhanced coordination among border agencies and the reduction of physical documentation and administrative burdens. Taken together, these achievements reaffirm ASYCUDA's critical role not only in supporting governments, customs administrations and trade agencies but also in advancing more inclusive, efficient, and resilient trade ecosystems in line with contemporary development objectives.

Afghanistan

99% **reduction** of **exemption processing** time for 12 UN agencies.

Antigua and Barbuda

25% **increase** in **customs revenue** in 2023–2024 following AW upgrade.

Bangladesh

12% **increase** in **export transactions** between July–January 2023–24 and July–January 2024–25.

Cambodia

14% **increase** in **customs revenue** in 2023–2024.

Gambia (the)

32% **increase** in **customs revenue** in 2023–2024.

Guyana

14.5% **increase** in **customs revenue** in 2023–2024

Iraq

128% **increase** in **customs revenue** in 2023–2024.

Jamaica

1 billion JMD **saved** since 2016 through AW and SW **paperless transactions**.

Kazakhstan

67% **reduction** in transit declaration **processing time** in 2017–2024

Malawi

760 (44% of women) Malawi Revenue Authority **staff trained** in AW.

Niger (the)

76% **increase** in **export transactions** in 2023–2024.

Palau

20% **increase** in **customs revenue** since implementation of AW in 2024.

Sri Lanka

11% **reduction** in **processing time** for eCITES permits in 2023–2024.

Timor-Leste

85% **reduction** in **printed documents** since the implementation of TileSW.

Turkmenistan

50% **reduction** in **processing time** for submissions in 2023–2024.

Venezuela (Bolivarian Republic of)

96% **increase** in **export transactions** in 2023–2024.

Zimbabwe

803 **participants trained** on ASYCUDA-based Single Window

IV. ASYCUDA New Generation for Sustainable Trade Development

a. Scope & Objectives

The development of ASYCUDA New Generation has been shaped by four core business objectives, ensuring that its technical architecture remains responsive to the evolving needs of users across the global trade ecosystem. These objectives also underpin the Programme's contribution to broader institutional mandates, including those defined under UNCTAD16 and the Sustainable Development Goals.

ASYCUDA New Generation is shaped by evolving trade needs, **aligning system design with institutional mandates** under UNCTAD16 and the SDGs.

1. Business Objectives of the Trade Community

The design of advanced trade facilitation systems necessitates a nuanced understanding of the operational priorities and institutional realities faced by the trade community. This community encompasses both public sector actors, such as customs administrations and partner government agencies (PGAs), and private sector stakeholders, such as importers, exporters, logistics operators, and financial institutions. While infrastructure, technological access, financing, stability, and market integration remain foundational, recent technological innovations and an increasingly multipolar and multilateral environment have introduced new layers of complexity. This evolution underscores the growing importance of adaptability, integrity, resilience, and transparency. To address these challenges, the business needs of the trade community have been structured into four thematic clusters of interrelated requirements that inform the development of forward-looking customs and trade solutions.

Adaptability and Operational Resilience

Adaptability – Systems must offer high configurability and the ability to respond to evolving requirements. Customs administrations and businesses require systems that can quickly adapt to new legislative mandates, shifting geopolitical realities, and emerging trade priorities. Adaptability ensures continuity of trade processes even during times of uncertainty.

Availability – Systems must ensure the continuous availability of services, information, and infrastructure. Businesses rely on dependable access to logistics networks, raw materials, and customs clearance services. Governments and customs authorities, in turn, must ensure that digital platforms, databases and qualified personnel are reliably in place to support seamless trade operations.

Efficiency – Efficient trade and customs operations reduce costs, shorten clearance times, and improve the reliability of transactions. It maximizes human resource utilization

Its **architecture** supports **adaptability, resilience,** and **availability**, critical for operating amid global disruptions and regulatory shifts.

and improves the consistency and fairness of treatment. Efficient systems simplify regulatory enforcement, streamline interagency collaboration, strengthen revenue collection, and reduce bureaucratic bottlenecks. Efficiency enhances resilience, enabling quicker recovery from disruptions such as pandemics or natural disasters.

Good governance and Trust

Customs systems must ensure good governance by embedding **transparency, data integrity, and security** throughout digital trade processes.

Compliance – Access to preferential trade arrangements, enhanced business credibility, and expedited customs clearance all depend on effective compliance. Digital platforms must ensure alignment with legal, fiscal, and procedural requirements such as quotas, rules of origin, safety norms, and licensing protocols. Compliance also reinforces interoperability with global systems and contributes to harmonization efforts.

Confidentiality – Inadequate safeguards expose traders to risks such as data misuse, economic espionage, and financial losses. Systems must therefore comply with personal data protection laws and incorporate mechanisms to prevent unauthorized access.

Integrity and Reliability – Systems must protect the integrity of information through validation protocols, harmonized data structures, and controlled access. In addition, systems should support global trade analysis and facilitate the detection of anomalies and fraud. Automation of procedures and reduced discretionary interactions contribute to improving public sector accountability.

Security – Digitalization must contribute to supply chain security, especially for sensitive goods such as medicines, food products, and hazardous materials. Freight forwarders and shipping companies must ensure the integrity of cargo during transit. Customs authorities must apply the relevant controls, deploy advanced risk management tools, and uphold safe and secure data exchanges protocols while safeguarding revenue collection.

Inclusion and Cooperation

Inclusive systems promote equal access for small traders and underrepresented groups, bridging the digital divide in trade facilitation.

Inclusion – Inclusive systems facilitate the participation of all economic actors regardless of their size, geographic location, or socioeconomic background. Equal access to trade opportunities requires appropriate infrastructure, digital tools, training, and support services. Systems must be designed to accommodate diverse user needs and eliminate barriers to participation.

Cooperation – Aligning institutional mandates, reducing procedural redundancies, and synchronizing control mechanisms are essential for efficient trade facilitation. Inter-agency data exchange and coordinated processing enhance risk management and help reduce administrative delays. These efforts contribute to more predictable, transparent, and stakeholder-responsive trade ecosystems.

Harmonization and Simplification

Harmonization and Simplification – Streamlined and harmonized processes simplify trade operations by reducing the number of steps and aligning them with best practices. Harmonization facilitates interoperability, ensures procedural consistency, and lowers administrative burdens. The implementation of Single Window for Trade systems exemplifies efforts to integrate agencies' processes.

Transparency – Traders must be able to access clear, up-to-date information on applicable rules, procedures, and required documentation. Systems must also provide traceable, auditable, and appealable decision-making mechanisms. Transparency builds confidence in public institutions, promotes fair treatment, and enhances voluntary compliance.

Table 2
Summary Table: Business Needs and Their Trade Facilitation Objectives

Thematic Cluster	Business Objective	Description
Adaptability and Operational Resilience	***Adaptability***	• Rapid system response to regulatory and policy changes
	Availability	• Continuous access to services, logistics, and systems
	Efficiency	• Reduced processing time, paper use, and resource wastage
Good Governance and Trust	***Compliance***	• Conformity to international and national trade rules
	Confidentiality	• Protection of sensitive trade and business information
	Integrity and Reliability	• Ensuring accurate, harmonized, and trustworthy data and operations
	Security	• Prevention of fraud, theft, smuggling, and protection of duties and taxes
Inclusion and Cooperation	***Inclusion***	• Equal access and participation for marginalized groups and low-income traders
	Cooperation	• Inter-agency coordination and public-private collaboration
Harmonization and Simplification	***Harmonization and Simplication***	• Unified procedures, reduced redundancy, Single Window systems
	Transparency	• Clarity on decisions, auditability, and availability of appeal mechanisms

2. IT Objectives and Technological Evolution

This section outlines the specific IT objectives required to translate the previously defined business requirements into functional, sustainable, and future-ready digital systems for trade facilitation.

A unified **business-IT framework** enables digital platforms to translate core trade needs, like trust, resilience, and simplification, into **functional system objectives.**

Adaptability and Operational Resilience

Adaptable Technology – In the dynamic global trade landscape, adaptability is essential. Governments require secure, flexible technology that can adjust to evolving

regulations and trade processes. Agile software development is ideal for this, enabling iterative improvements and collaboration among stakeholders. A robust technological framework is crucial for managing digital trade operations, ensuring consistency, usability, and alignment with development goals. UNCTAD maintains sole responsibility for this standardized framework to ensure public sector ownership and long-term sustainability. The system must also be compatible with diverse IT infrastructures and perform well even in low-bandwidth environments.

ASYCUDA's software design supports public sector ownership, long-term sustainability, and high availability, even in low-bandwidth settings.

Availability of Software and IT Staff – To ensure continuous operation, the technology platform must be available 24/7 without interruptions. This requires a strong backup and failover strategy, including operational backup servers and data centers that can handle emergencies like power outages or natural disasters. High availability also involves maintaining strong performance through real-time load balancing and resource allocation, especially during peak usage. IT teams need tools to monitor and optimize system performance in real time. Additionally, the platform should be built using widely taught programming languages to ensure a broad talent pool for support and maintenance, strengthening national capacity for long-term system sustainability.

Efficiency – Technology can greatly enhance trade efficiency by automating and digitalizing the clearance process, allowing transactions to start before goods arrive or depart. Scalability features like real-time monitoring and dynamic CPU allocation help manage traffic spikes and optimize resources. Automated examiner assignment based on factors like location, workload, and risk improves resource use and inspection integrity. Artificial Intelligence (AI) and machine learning (ML) further streamline operations by optimizing officer allocation, managing workflows, detecting anomalies, and forecasting traffic. Additionally, automating organizational charts within customs and partner agencies improves transparency, communication, accountability, and performance monitoring.

Good Governance and Trust

Compliance – Technology used in international trade must comply with legal, procedural, and technical standards to ensure reliability, security, and interoperability. The system

must align with the WCO Data Model for regulatory needs and use structured digital formats like XML for data exchange. It should also adhere to ISO standards for data security and communication protocols. Compliance with the WTO Trade Facilitation Agreement and regional standards, such as the EU's cybersecurity and data exchange criteria, is essential. Additionally, national regulations like quota management must be integrated into the system to ensure full regulatory compliance across all levels.

Confidentiality and Security – Governments must ensure secure transmission and storage of customs, commercial, and financial data through consistent use of encryption and secure login protocols. Effective trade facilitation relies on secure electronic communication between Single Window platforms. A dedicated intellectual property (IP) framework is needed to define ownership, usage rights, and guidelines for open-source releases and system deployment. Technology should also integrate advanced business intelligence and predictive analytics to detect suspicious activities, and leverage IoT devices like smart containers and sensors for real-time monitoring across the logistics chain.

Integrity and Reliability – Reliable trade technology must ensure data integrity through secure, encrypted exchanges and integration to avoid duplication or loss. Cryptographic methods like hashing and checksums protect sensitive data from tampering.

System changes should follow strict management, allowing only authorized updates tracked via version control. Audit logs and real-time monitoring help detect anomalies. Standardized data entry using validation tools ensures accuracy, supporting effective customs risk management and processing.

Core IT safeguards such as encryption, risk detection, and access control **ensure confidentiality, integrity**, and resilience of customs data.

Inclusion and Cooperation

Inclusion – Inclusive trade requires that IT systems be accessible to all users, irrespective of their size, resources, or digital maturity. In areas with limited resources, customs brokers should support small traders, and customs offices should offer shared workstations and internet access. Beyond access, effective use requires tailored training programs in multiple formats and languages to build user capacity

Cooperation – IT systems improve collaboration by harmonizing data and enabling real-time communication among stakeholders. Platforms like Single Windows integrate multiple agencies and external partners, streamlining data exchange. Built-in messaging tools allow live updates, reducing delays and improving transparency. Additionally, trade information portals provide self-service access to regulations and support, benefiting both large and small traders and enhancing overall efficiency.

Customs IT systems must also support inclusion, multilingual tools, and collaborative inter-agency decision-making to **ensure policy coherence**.

Harmonization and Simplification

Harmonization and Simplification – Technology simplifies and harmonizes trade by converting documents like bills of lading and invoices into structured electronic data. Digital payments reduce delays, while e-certificates and e-signatures ensure secure authentication. AI and machine learning enhance compliance checks, fraud detection, and risk assessment. Integration with IoT devices further automates logistics, creating a more efficient, predictable, and seamless trade environment.

Transparency – Fairness and trust among stakeholders depend on clear and accessible information throughout the trade process. Trade Information Portals keep traders informed of regulatory updates, helping them prepare accordingly. Systems should

include digital query management, allowing users to submit, amend, and appeal queries, with automated workflow adjustments based on decisions. All transactions and document versions must be archived to support accountability, dispute resolution, and audits.

Figure 2
ASYCUDA IT Objectives – Aligned for Impact

b. ASYCUDA New Generation of Customs & Trade Information Management Software

ASYCUDA's digital architecture **aligns business and IT priorities** to deliver secure, transparent, and adaptive trade facilitation solutions.

To deliver upon it's mandate and identified business and IT objectives, ASYCUDA has developed a modern, modular, and cloud-native platform. Designed through comprehensive research and informed by stakeholder input, it serves as the foundation of ASYCUDA New Generation. It enables streamlined trade processes, strengthens system interoperability, and reinforces national digital ownership. The platform enhances usability, ensures continued compliance with international standards, and integrates AI-driven risk management. It also consolidates key ASYCUDA tools (Single Window, ASYHUB, eCITES, ASYREC) into a unified, scalable, and cost-efficient digital ecosystem.

1. Research Methodology and Approach

The ASYCUDA New Generation customs management software was developed using a structured, evidence-based approach to create a modern, efficient, and cost-effective solution tailored to evolving user needs. Grounded in decades of experience and user feedback, the process included a comprehensive review of existing ASYCUDA systems

and other solutions. Key design priorities included adaptability, security, scalability, and a renewed focus on cost-efficiency, especially for LDCs, LLDCs, SIDS, and emerging economies. The system emphasizes open-source, high-quality software to avoid licensing costs and ensure long-term sustainability.

Research-Informed Decision-Making

Building on fine-tuned technical requirements and user feedback, the ASYCUDA Programme evaluated global best practices, modernization opportunities for ASYCUDAWorld, and alignment with international IT standards. This process included strategic consultations with UNCTAD leadership and technical reviews, resulting in core guidelines and recommendations that blend global innovation with practical, field-tested solutions for UNCTAD's new generation customs system.

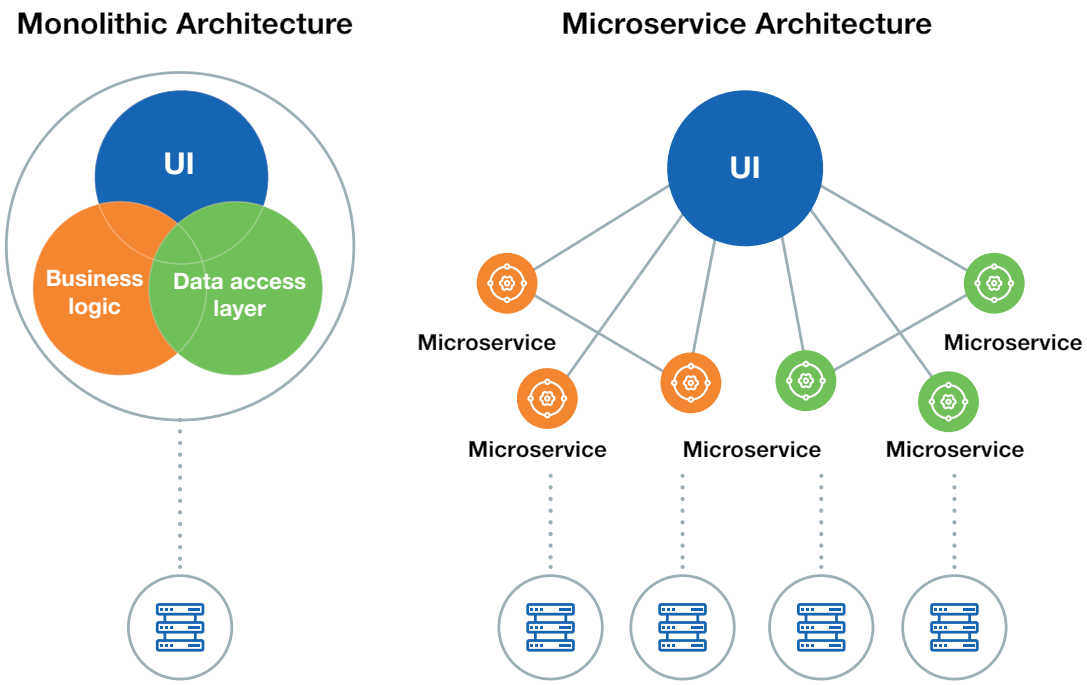
Strategic Development Guidelines

The development of the new system followed several core principles:

- ***Open-source technologies:*** Promote user-country ownership, reduce costs, and support sustainability and local capacity building.
- ***Technology-neutral middleware:*** UNCTAD-managed core platform ensures consistency and compatibility across all ASYCUDA tools.
- ***Cloud-native architecture:*** Enables modular, containerized applications for scalability, performance, and flexible deployment.
- ***Microservices approach:*** Isolates system components to lower maintenance costs, speed up delivery, and allow agile, function-specific development.

By embracing open-source and microservice technologies, **ASYCUDA enables modular, scalable, and cost-efficient deployment** for developing countries.

Figure 3
Monolithic vs Microservices Architecture



- ***Use of widely taught programming languages:*** Ensures a broad pool of local developers for easier implementation, support, and upgrades.
- ***End-to-end in-house development:*** Guarantees fully integrated, purpose-built components, avoiding inefficiencies associated with the mixing of different software.
- ***Real-time performance monitoring dashboard:*** Helps countries proactively manage system health and efficiency.
- ***Pilot implementations in diverse countries:*** Selected based on readiness, infrastructure, economic classification, and geography to reflect ASYCUDA's global user base.

Laying the Foundation for ASYCUDA New Generation Solutions

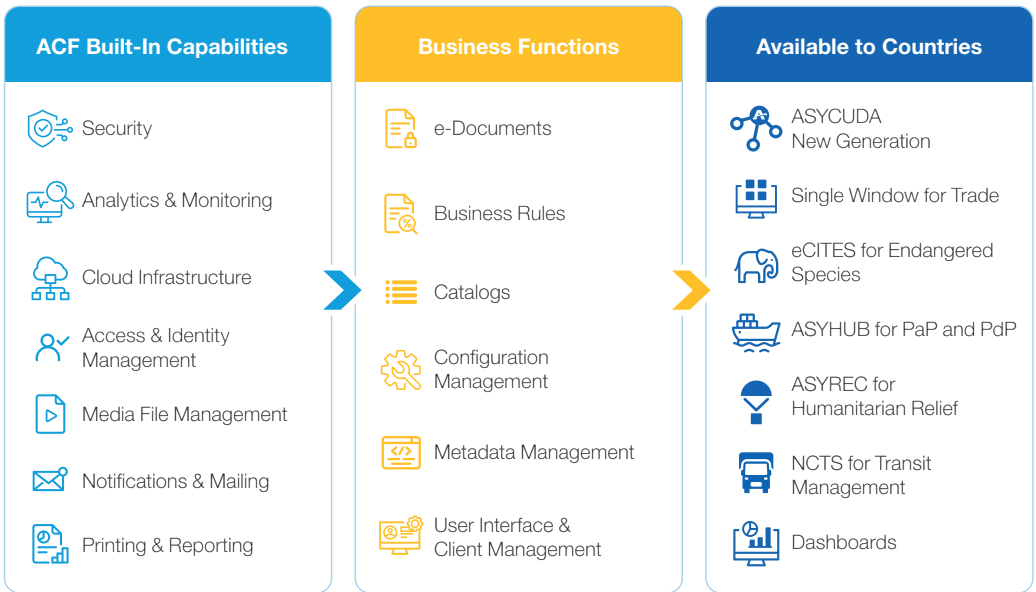
ACF simplifies digital transformation by **standardizing key capabilities** like security, analytics, and user management.

The ASYCUDA Cloud Framework (ACF) and ASYCUDA New Generation systems were developed through a rigorous, inclusive, and evidence-based process. Every element, ranging from technology selection and system architecture to programming approach and development methodology, was carefully designed to deliver a scalable, secure, and sustainable digital public good. Grounded in technical evidence and decades of operational experience, the resulting software ecosystem is robust, future-ready, and specifically tailored to the priorities of developing countries, ensuring efficient and reliable trade clearance.

2. The ASYCUDA Cloud Framework (ACF)

The ACF is the core platform for developing ASYCUDA New Generation software, ensuring consistency and harmonization across tools like ASYCUDAWorld, Single Window, ASYHUB, ASYREC, and eCITES. It simplifies cloud-native architecture by managing foundational technical functions such as security, transaction processing, and system monitoring.

Figure 4
The ASYCUDA Cloud Framework (ACF)
Simplifying digital trade systems by managing technical complexity and delivering modern, scalable solutions



Designed for deployment flexibility, the ACF supports on-premises, public cloud, or fully cloud-native environments, allowing alignment with national infrastructure. Its modular, business-driven architecture enables developers to address specific needs with reduced coding effort, lower costs, and faster implementation. The framework is scalable, resilient, and optimized for high performance, even under peak loads.

As the sole custodian, UNCTAD ensures the ACF's consistency and interoperability, safeguarding national investments and supporting long-term sustainability.

Business Operations

Business Rules Management – The ACF enables end users, like customs authorities and partner agencies, to create and manage business rules directly through the user interface, without needing IT support. These rules govern data validation, risk management, tax calculations, and more, allowing for country-specific customization.

ACF enables trade authorities to manage custom business rules, catalogs, and workflows, **improving clarity and control.**

The ACF offers a flexible, API-driven approach. Developers can define custom and PGAs functions, while business users can import/export rules, simulate outcomes, and monitor their effects. This separation of business and IT roles enhances agility, clarity, and implementation success.

Catalog Management – In the ACF catalogs, formerly reference tables in ASYCUDAWorld, are time-based dropdown lists used in documents to standardize data input and reduce errors. These include data like countries, currencies, procedures, and exchange rates, based on international and national standards (e.g., ISO, WCO).

The ACF introduces a dedicated catalog toolkit for developers and a user-friendly interface for business users to manage catalog content. Catalogs can now be auto generated from the interface, accessed via API, and imported/exported as files, enhancing efficiency and interoperability.

Configuration Management – The ACF offers advanced configuration management through specialized tools and libraries. It supports both module-specific and global configurations, allowing tailored setups for diverse services and stakeholders. Business users can manage settings via intuitive interfaces and track all changes. A centralized repository consolidates configuration data, streamlining maintenance and controlling access for internal and external systems.

Electronic Document Management – The ACF includes a robust toolkit for managing electronic documents (e-documents) across trade processes. It supports data modeling, workflow automation, security permissions, audit logs, version control, ownership tracking, and e-signatures. This unified approach ensures consistency, simplifies business process reengineering, and accelerates IT implementation. Developers save time on repetitive tasks, while users benefit from a seamless, standardized experience that enhances electronic data exchange and speeds up deployment.

A dedicated **e-documents** module supports **secure digital transactions**, with audit trails, versioning, and e-signature tools.

Core Infrastructure

Identity and Access Management – The ACF includes comprehensive identity and access management features such as role-based access control, unit assignments, password policies, user profiles, and authentication mechanisms. It supports Single Sign-On (SSO) and built-in two-factor authentication (2FA) using one-time passwords (OTP). Passwords are secured with advanced hashing techniques and over 65,000

iterations. Administrators can easily define and adjust fine-grained access rights, ensuring secure and flexible user management.

Media File Management – The ACF includes a Media Storage Service for managing media files, especially PDFs. It supports uploading, downloading, tracking, and versioning across systems. Built-in features include file validation, virus scanning, compression, and encryption. Administrators can configure settings such as file types, size limits, storage formats, and link-sharing permissions, ensuring secure and efficient media handling.

Metadata Management – The ACF includes a metadata toolkit that allows developers to define and dynamically generate user interface forms and reports. It supports adaptive forms that change based on input data and workflows. This flexibility accelerates development, enhances user experience, and supports rapid creation of metadata and data models.

Monitoring and Logging – The ACF includes a System and Application Monitoring Module that tracks key performance metrics like CPU usage, memory, disk space, and network activity. This helps administrators, users, and auditors assess system health and address issues proactively. A Log Manager centralizes log data in a user-friendly dashboard, while an Alert Manager sends automated notifications based on predefined triggers, such as system failures or communication breakdowns.

Communication & Reporting

Administrators can track performance metrics, trigger alerts, and generate tailored reports using ACF's integrated monitoring and reporting suite.

Notifications and Mailing – The ACF supports internal messaging and event-triggered alerts. It enables sending messages, managing email groups, and distributing notifications via internal messages, email, or SMS. Users can subscribe to specific event types and receive customized alerts, each with a severity level, explanation, and action link. Both administrators and users can configure pre-defined messages, enhancing responsiveness and communication efficiency.

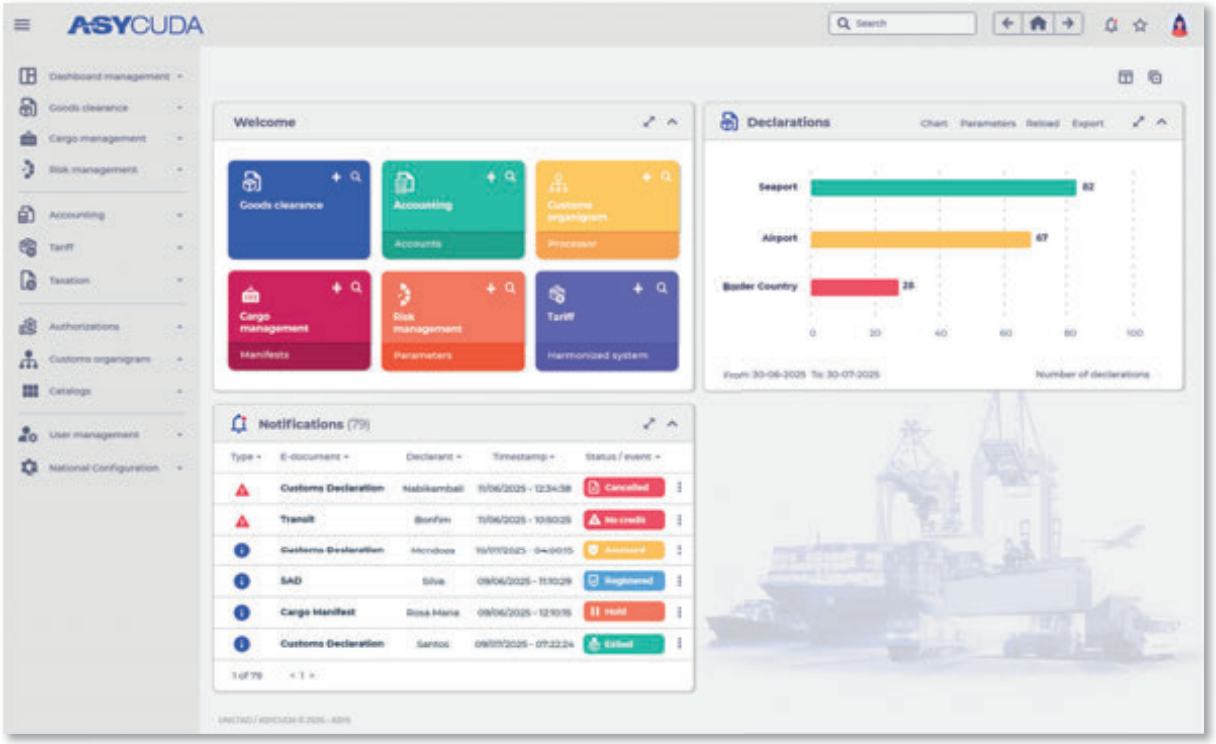
Printing and Reporting – The ACF includes a flexible Reporting Toolkit that allows users and developers to generate both pre-defined and dynamic reports based on configurable inputs. This supports accurate statistical reporting for internal and external stakeholders. It enables report customization without modifying source code or relying on IT support, streamlining document handling for governments, customs authorities, and partner agencies.

User Interface and Client Management – The ACF features a modern, web-based user interface optimized for desktops, laptops, tablets, and smartphones. Users can also install a web app version for enhanced access. Customization options include language, themes, display preferences, and location settings. Built-in documentation, help features, and a machine learning–powered chatbot support user onboarding and troubleshooting, ensuring a responsive and user-friendly experience.

3. ASYCUDA New Generation for Customs Digitalization

The ASYCUDA New Generation customs management software is built on the ACF. While retaining all core modules and features, it enhances them to meet modern customs digitalization needs. This fully modular, cloud-native platform offers a user-friendly, scalable, and customizable solution for end-to-end trade facilitation and automated customs clearance.

Figure 5
ASYCUDA New Generation Customs Management System Dashboard



Designed with developing countries, LDCs, LLDCs, and SIDS in mind, it emphasizes cost-efficiency, local ownership, interoperability, and alignment with international standards and trade facilitation frameworks. Its web-based architecture ensures seamless integration with broader digital government ecosystems.

Main Characteristics and Features

The ASYCUDA New Generation customs management software inherits all the ACF technical strengths, including a modern user interface, structured e-Documents, configurable workflows, secure role-based access, and robust transaction processing. These features create a cohesive digital environment that enhances efficiency, transparency, and resilience in customs operations.

Open-source Software – The ASYCUDA New Generation customs management software is developed as an open-source platform, reinforcing UNCTAD's commitment to transparency, sustainability, and public sector empowerment. By providing access to the source code, it enables countries to take full ownership, customize systems to their needs, and foster innovation. Open-source development also encourages peer collaboration, builds a global community of practice, and strengthens national capacities through shared knowledge and co-created regional solutions.

Programming Language and IT Tools – The ASYCUDA New Generation customs management software is primarily developed in Java, with the Quarkus framework powering its high-performance microservices. It uses the Jakarta EE specification for scalable enterprise applications. The user interface is built with VueJS, a fast, flexible, and widely adopted JavaScript framework that supports modular, reusable components.

ASYCUDA's cloud-based architecture ensures system scalability, compliance, and interoperability **with global trade norms**.

With AI and ML integration, **ASYCUDA** automates workflows, detects anomalies, and enhances real-time risk profiling for **smarter customs operations.**

Additional tools include:

- Gradle for build automation
- Git for version control
- Kotlin as a complementary language to enhance flexibility and developer productivity

This modern tech stack ensures speed, scalability, and ease of development and maintenance.

Alignment with International Standards – The ASYCUDA New Generation customs management software is fully aligned with the best international practices and global standards. It advances beyond ASYCUDAWorld by offering improved conformity with the WCO Data Model version 4.0, thereby enhancing data harmonization. Its integrated risk management module adheres to the WCO SAFE Framework, while its functionality supports key WTO provisions, including trusted trader programmes, valuation adjustments, advance rulings, and electronic query handling. The system is also adaptable to both regional and national regulatory frameworks, ensuring broad applicability and relevance.

Workflow Mechanism – The ASYCUDA New Generation customs management software introduces a streamlined workflow system to enhance procedural efficiency, harmonize processes, and improve user experience. It features an ecosystem for creating and deploying effective e-Document workflows tailored to business needs. With technical toolkits and the ASYCUDA Cloud Framework, development time is reduced by 40–50 per cent thanks to pre-built components and automation tools that speed up workflow and module creation.

User Interface – The ASYCUDA New Generation customs management software features a modern, user-friendly responsive interface based on current design standards. It includes a clean layout with a top navigation bar for easy access to user settings and notifications. The customizable homepage supports shortcuts, real-time dashboards, and status updates. An expandable menu provides for quicker navigation. Forms and

documents are displayed with collapsible fields for clarity, and the customs declaration interface uses a consistent color scheme aligned with UNCTAD branding. The enhanced document finder allows configurable searches, improving document retrieval efficiency.

Artificial Intelligence and Machine Learning – ASYCUDA has conducted in-depth research on the integration of artificial intelligence (AI) and machine learning (ML) to enhance customs automation and trade digitalization, with the aim of improving trade facilitation, regulatory compliance, and operational efficiency. This research explored methodologies such as statistical analysis, supervised and unsupervised learning, rule validation, and natural language processing. Findings show that AI improves data quality by detecting inconsistencies, while ML strengthens risk management by identifying high-risk transactions and fraud patterns. These technologies reduce manual workloads and support data-driven decision-making. ASYCUDA has incorporated these capabilities into its Cloud Framework and new software architecture, embedding AI-powered analytics, interactive dashboards, and adaptive learning models. These tools allow customs administrations to refine risk profiles, improve selectivity, optimize resource allocation, and accelerate clearance processes, all while maintaining robust control and compliance standards.

Functional Scope

The ASYCUDA New Generation customs management software retains all core modules and operations from its predecessor, while enhancing them with improved functionality, a responsive and more intuitive user interface, and stronger alignment with international standards for customs digitalization. This ensures continuity for users while delivering a more modern and efficient experience.

Cargo Management – The new cargo management module introduces a dedicated transport movement document within the manifest that automatically triggers departure and arrival notifications. The system provides real-time updates on delays, cancellations, and diversions. Transport documents (waybills) are now independent data objects that can be submitted before the manifest, giving customs early access to shipment data for proactive risk assessment. Additionally, the system supports real-time updates of transport information and includes a container tracking feature, allowing customs to monitor container movements throughout the logistics chain.

Import and Export Declaration Management – The import/export declaration module has been redesigned for better functionality and user experience. While the traditional Single Administrative Document (SAD) layout is still available, the new interface adapts dynamically to the user's input, only showing relevant fields. This streamlines data entry and reduces clutter.

Additionally, the system now clearly separates declaration statuses from selectivity and control functions. It provides detailed timestamps for each action (e.g., modification, acceptance, rejection), along with access to previous versions and statuses. This enhances traceability, transparency, and supports effective oversight and dispute resolution.

ASYCUDA New Generation features redesigned modules for import/export, warehousing, and authorization, delivering faster, **more transparent trade clearance.**

Warehouse Management – The improved warehousing module offers full control over goods stored under customs supervision. It supports the issuance and management of warehousing authorizations and enables end-to-end monitoring of goods from entry to exit.

A major innovation is the guaranteed management feature, which allows for flexible configurations such as partial guarantees based on a percentage of duties and taxes, or full waivers when applicable. Additionally, the module introduces real-time accounting stock management, giving customs and warehouse operators complete visibility into stock levels and movements through dedicated entry and exit tracking mechanisms.

Authorization Management – A comprehensive authorization management module is now available to streamline and automate access and customs-related requests. Users can digitally submit, amend, manage, or cancel queries for various authorizations, such as customs broker access, warehousing permissions, inward processing, guarantee accounts, and inclusion in the Authorized Economic Operator (AEO) list.

Customs authorities can process these requests through configurable workflows with actions like acceptance, rejection, suspension, or extension. The system uses structured e-request forms, eliminating the need for paper-based processes. It also features automatic tracking, logging, and audit tools to support transparency, appeals, and oversight.

Modernized modules for **tariff, taxation, and cargo management** reduce paper-based processes and improve efficiency across the logistics chain.

Temporary Admission – The temporary admission process builds upon the functionalities established in the import and export declaration module. The system introduces clear, configurable workflows to manage customs regimes such as IM5.

Users can configure guarantee requirements, monitor admissions, manage discharges, extend deadlines, transfer responsibility to another holder or write off previous declarations. These streamlined operations reduce procedural complexity and enhance operational efficiency.

Accounting and Payment – A revamped accounting and payment module is available to enhance efficiency, user experience, and control. It features a more intuitive interface with improved automated validations. Daybook operations, including opening, closing, and shift management, are now automated, reducing manual tasks and errors. Payment account creation is fully automated, saving time and paper. Users can initiate payment requests directly from the system, select declarations, and generate customizable receipts. The system also supports multi-currency payments, offering greater flexibility for international trade.

Organigram Management – A brand new organizational structure module allows real-time creation and maintenance of organigrams for customs and PGSs. Every customs officer must be assigned to a specific organizational unit, which determines their access rights and responsibilities. This structure supports internal workflows and catalogues. A responsive and user-friendly interface ensures that roles and reporting lines can be easily updated and kept current.

Selectivity and Risk Management – A modernized risk management module is aligned more closely with the WCO SAFE Framework. Instead of categorizing controls by type, it now uses risk levels (high, medium, low) to guide selectivity. Customs officers are assigned tasks based on these risk levels, and Local Customs Selection Units (LCSU) help allocate declarations by considering factors like workload and consignment type.

To prevent collusion, selection and control duties are separated. The system includes improved tools for creating selectivity rules, automatic generation of detailed inspection reports, and dashboards for monitoring performance and outcomes. Compliant traders, such as Authorized Economic Operators (AEOs), benefit from reduced control frequency, ensuring efficient resource use without compromising oversight.

Tariff Management – Tariff management is improved by automating processes and enhancing usability. It supports direct integration of updated Harmonized System (HS) tariff versions from the WCO using CSV or XML formats and allows exporting tariff data in the same formats. Users can generate consistency reports to detect gaps or overlaps in the nomenclature.

Streamlined interfaces for both HS and national tariffs make it easier to modify commodity descriptions, update duty rates, and manage classification changes and validity dates. The system also includes correlation tables to map old and new codes, improving control, statistical accuracy, and reporting.

Taxation Management – The new taxation module offers robust tools for defining and applying tax rules. Users can create taxation lists for any field in a customs declaration, and the system flags unused lists for review. Preferential trade agreements and related countries are managed through a unified interface.

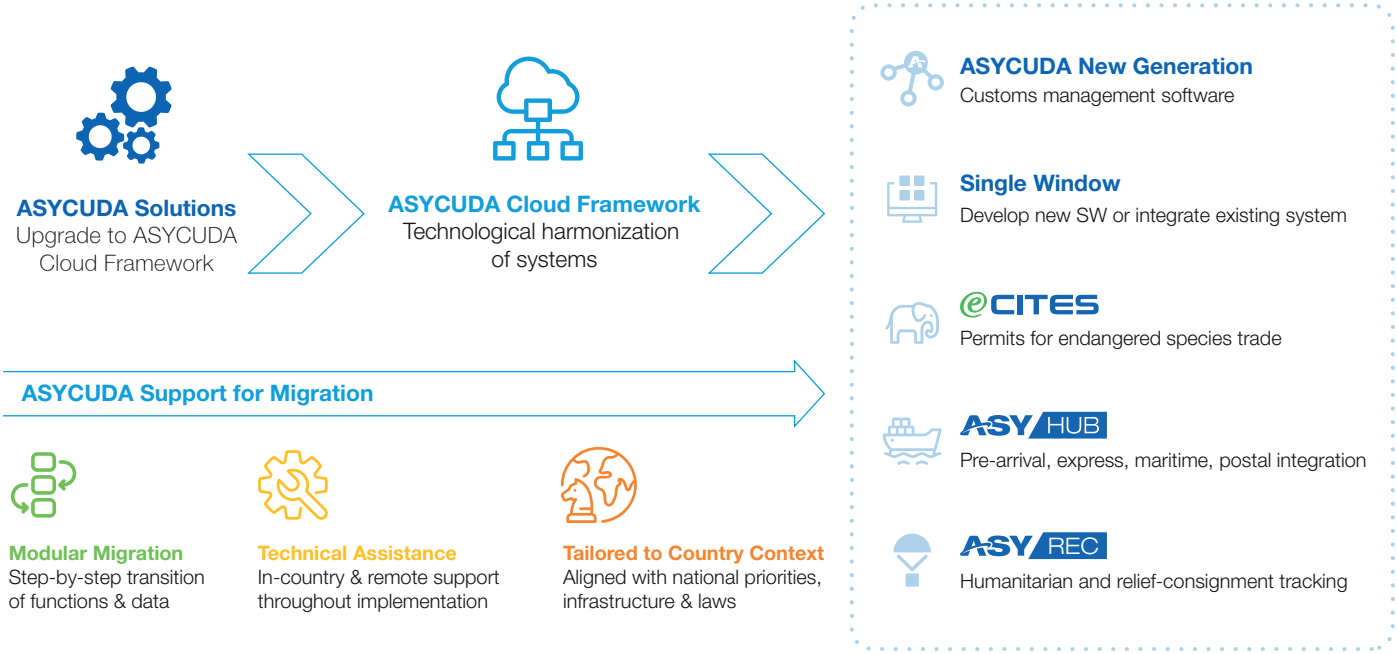
The module supports simulation of tax rules using historical data, enabling testing and refinement. A simplified, advanced user interface allows non-programmers to create and manage tax rules, increasing flexibility and reducing dependence on IT support.

ACF enables phased **migration to modern trade systems**, with tailored support for local context, institutional needs, and digital readiness.

4. Other ACF-Powered Platforms for Smart Trade Facilitation

Beyond customs, the ACF contributes to the unification of system architecture and infrastructure, facilitating deeper integration of administrative processes and digital platforms across government agencies.

Figure 6
Migration to ASYCUDA Cloud Framework (ACF)
Phased, supported transition to Modern Trade Solutions



Enhanced Framework to Implement a Single Window Concept

Tailored Single Window solutions streamline clearance, reduce duplication, and **strengthen institutional coordination.**

Historically, Single Window (SW) for Trade systems based on ASYCUDA have been custom-built using ASYCUDAWorld technology, tailored to the specific requirements of each country. No standardized version currently exists. The ASYCUDA New Generation will leverage the ACF to deliver greater flexibility, modularity, and system integration. These next-generation SW systems may either incorporate the ASYCUDA New Generation customs management software or function independently while enabling data exchange with various customs platforms.

The development process typically begins with a feasibility study that produces a strategic blueprint aligned with national priorities and international standards. As of 2025, 13 ASYCUDA-based SW systems have been implemented, with recent strategic blueprints developed for Palau, Papua New Guinea, and Samoa. Countries transitioning to ACF-based systems receive comprehensive technical support from UNCTAD, aimed at enhancing service quality, interoperability, and operational efficiency.

ASYHUB enhances logistics efficiency by enabling pre-arrival and pre-departure processing for **express, maritime, and postal consignments**.

ASYHUB: Platform for Enhanced Pre-arrival and Pre-Departure Processing of consignment data and Logistics Management

The ASYHUB platform supports data related to Express, Maritime, and Postal consignments, and is being upgraded using ACF. This transformation allows ASYHUB to fully utilize ACF's advanced features, enhancing its ability to process large volumes of trade data, streamline system interfaces, and standardize data exchange protocols. These improvements help customs administrations and PGAs manage logistics, risk assessments, and pre-arrival or pre-departure procedures more accurately and efficiently. To support this transition, the ASYCUDA Programme provides customized technical assistance to countries, ensuring a smooth migration of infrastructure and

modules through a phased and risk-managed approach that safeguards operational continuity and user trust.

eCITES: International Trade in Endangered Species Management System

The eCITES platform, ASYCUDA's specialized system for managing international trade in endangered species, has been upgraded using ACF. This migration equips eCITES with advanced tools for processing permit applications, generating authorizations, handling queries, and ensuring compliance with CITES convention. All permit-related data is versioned and stored, enabling full audit trails and historical tracking. The flexibility of ACF allows for easy adaptation to evolving international standards without major code changes. It also enhances data validation and risk assessment by supporting predefined interventions and integrating the latest CITES Secretariat guidelines for legal trade reporting. The transition to ACF significantly reduces the system's memory usage and redundant code, improving efficiency and aligning with modern web development practices. Migration from earlier versions is supported by ASYCUDA experts and trained national staff, following a structured technical assistance framework to ensure smooth deployment and knowledge transfer.

eCITES now operates on ACF, **automating endangered species permit** workflows while ensuring traceability and global regulatory alignment.

ASYREC: Relief Consignments Coordination Platform

The ASYREC platform, developed to automate the coordination of humanitarian aid and disaster relief consignments, has been significantly enhanced using ACF. This upgrade improves operational coordination among relief stakeholders by enabling real-time tracking, inventory control, and role-based access management. The new version also supports more efficient account administration and secure access rights management, while reducing operational costs by eliminating the need for commercial middleware licenses. With ACF integration, ASYREC benefits from improved security, user-friendly configuration tools, and seamless integration with external agencies involved in emergency response and humanitarian logistics. As part of its support model, the ASYCUDA Programme provides expert assistance to help countries migrate to the new version, maintain system stability, and train local administrators to manage the platform independently.

ASYREC, upgraded on ACF, **improves real-time humanitarian coordination** and emergency relief tracking with secure, modular deployment.

Outlook

ASYCUDA New Generation customs management software migration to the ACF represents a major technological milestone, reinforcing the Programme's commitment to delivering cost-effective, sustainable, secure, and scalable digital solutions for customs administrations and partner government agencies in support of trade facilitation. By adopting ACF as the unified framework across all systems, the Programme ensures architectural coherence, accelerates deployment, and enhances long-term adaptability to evolving policy, regulatory, and operational requirements.

c. Implementation Strategy

ASYCUDA New Generation solutions are implemented in close collaboration with national governments, Customs Administrations and PGAs of user countries. This collaborative approach is tailored to reflect diverse national contexts, respond to dynamic trade requirements, and ensure the sustainable deployment of next-generation systems.

1. Technical Assistance Project

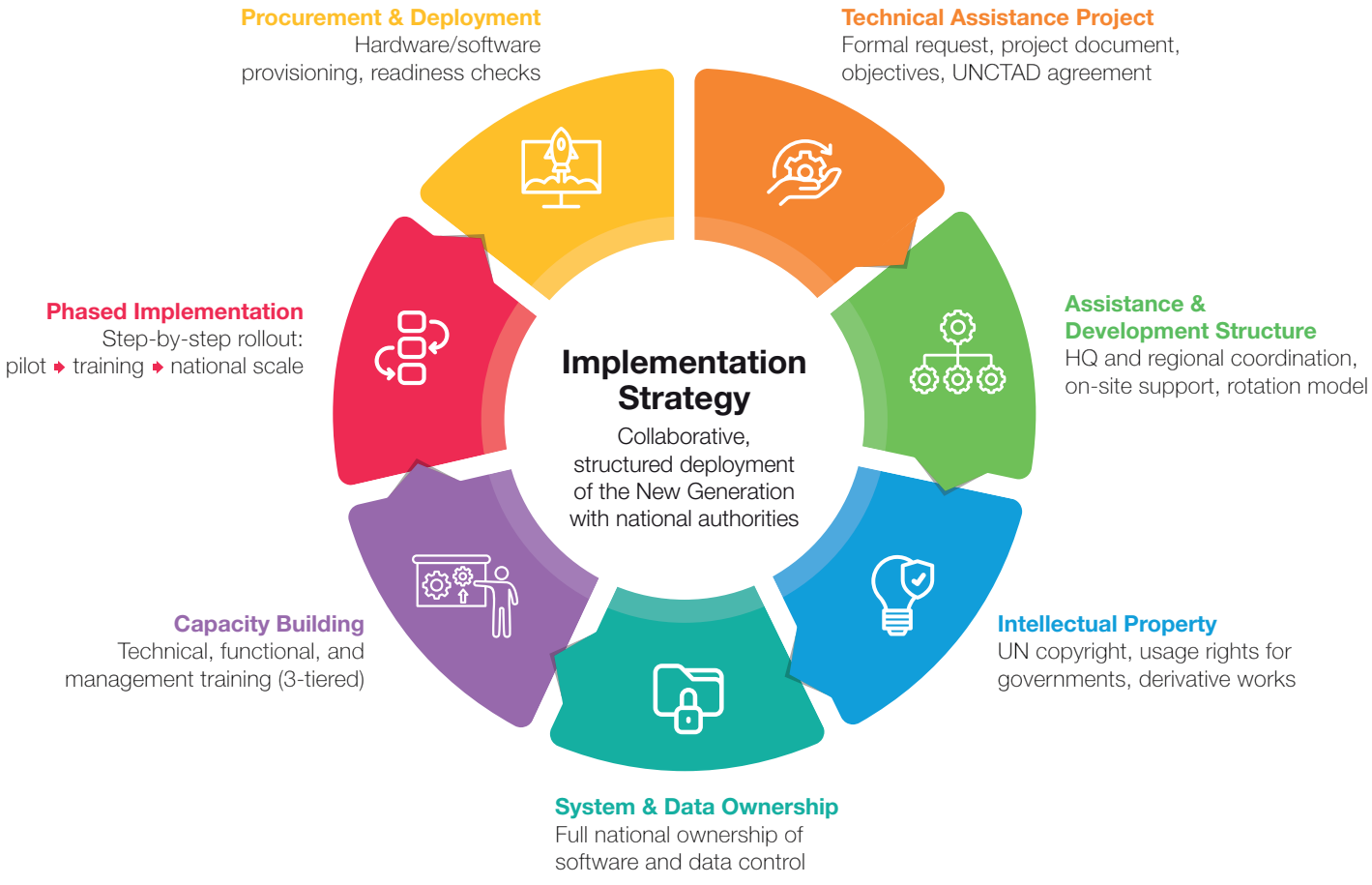
Migration to **ACF marks a strategic** shift toward unified, scalable digital platforms that **reduce operational risk and accelerate deployment.**

The ASYCUDA Programme operates on a demand-driven basis, with technical assistance initiated only upon receipt of an official request from a user country. A project document is then jointly prepared and agreed upon. For ASYCUDA New Generation solutions, a standardized project document template has been developed to define the project's scope, duration, budget, objectives, expected outcomes, institutional requirements, stakeholder roles, and other key parameters. The template is fully aligned with applicable UN rules and regulations, and adaptable to the legal and IT contexts of the requesting country. Where projects are financed by external donors, the documentation is adjusted as needed to reflect donor-specific requirements or agreed formats.

2. Deployment and Support Mechanism

Technical support is coordinated across UNCTAD Headquarters, Regional Centers, and on-site experts. For ASYCUDA New Generation customs management software, as well as for Single Window systems, ASYHUB, ASYREC, and eCITES, the Geneva-based team leads development and maintenance, while regional and national teams

Figure 7
Implementation Strategy
Collaborative, structured deployment of the ASYCUDA New Generation with national authorities



support deployment and country-level customization. Rotating personnel across regions fosters knowledge transfer and cross-regional learning. To strengthen institutional memory and ensure consistent delivery, each solution is now overseen by a designated product manager.

3. Intellectual Property and Institutional Framework

In keeping with UN policies and UNCTAD's mandate, the ACF, ASYCUDA New Generation customs management software, and all related solutions, documentation, and training materials remain the intellectual property of UNCTAD. However, user-country governments and their implementing agencies are granted a perpetual, royalty-free, non-exclusive, non-transferable, and non-sublicensable right to use the ASYCUDA software. They are also allowed to modify the application software and create derivative works, which remain the property of the developing government or agency. If these enhancements are considered beneficial to other ASYCUDA users, UNCTAD may collaborate with the originating party to promote or share them. All intellectual property terms are clearly defined in the respective project documents.

4. Phased Implementation and Migration from ASYCUDAWorld

The implementation of ASYCUDA New Generation customs management software follows a phased methodology, consistent with previous versions. The initial phase typically includes prototype configuration, introductory training for customs personnel, procurement of essential hardware and software, and pilot deployment at selected customs offices. Subsequent phases involve advanced training, development of country-specific features, and full national rollout. Depending on a country's readiness, the latter phases may be combined. For Single Window for Trade projects, implementation usually entails the progressive integration of additional stakeholders such as partner government agencies, ministries, and financial institutions through sequential module deployment. Countries migrating from ASYCUDAWorld may replicate and deploy their existing national modules and custom functionalities within the new system prior to full rollout, ensuring operational continuity and minimal service disruptions.

ASYCUDA uses donor-aligned frameworks and expert rotations to deliver **consistent, nationally owned outcomes.**

5. Procurement of Hardware and Software

The implementation of ASYCUDA New Generation customs management software and other ACF-based solutions often necessitates the early procurement of additional hardware and software. This step is integrated into the initial phase of the technical assistance process. Common hardware requirements include database servers, application servers, backup systems, laptops, and document scanners. On the software side, needs typically include operating systems, database management systems, and essential utilities to support a stable and secure IT environment. ASYCUDA's latest solutions are designed for seamless integration with existing ASYCUDA systems, ensuring full compatibility and coherence within the national digital infrastructure.

6. Capacity Building

ASYCUDA New Generation customs management software introduces a more comprehensive and structured capacity-building model. Training is structured into three

Government control over software, data, and infrastructure remains central, ensuring national sovereignty while **enabling capacity building through open tools.**

main streams: technical, functional, and managerial, each with multiple levels to suit different user profiles. Technical training covers system installation, configuration, and maintenance, requiring knowledge of programming languages like Java. Functional training focuses on user proficiency across the expanded software suite, while management training addresses implementation strategy, system performance, user roles, and configuration oversight. The training plan is tailored to each country's existing capacity and is documented in the technical assistance project. Additionally, ASYCUDA supports continuous learning through its e-learning platform, which offers tutorials and exercises for various systems, with new content being developed for the latest solutions. Early stakeholder engagement through awareness workshops has proven effective in building support and reducing resistance to change.

7. Ownership and Data Sovereignty

A core principle of UNCTAD's technical assistance is the full ownership of both systems and data by national authorities from the outset. The Programme places strong emphasis on developing local capacity to ensure that customs administrations can independently manage, maintain, and upgrade their systems beyond the duration of the project. UNCTAD does not access, store, or retain any trade data; all information remains entirely under the control of the national customs authorities. Upon request, ASYCUDA may provide support in areas such as data analysis, mining, and the preparation of statistical reports, enabling countries to derive greater value from their trade data while fully preserving national sovereignty and data confidentiality.

d. ASYCUDAWorld Support & Upgrade Continuity

Alongside the rollout of ASYCUDA New Generation customs management software and the migration of other solutions to the ACF, the Programme remains fully committed to supporting countries that continue to operate earlier versions, including ASYCUDAWorld. This support encompasses the release of new versions, as well as comprehensive assistance for implementation, maintenance, upgrades, and system enhancements. It also extends to related platforms such as Single Window for Trade, ASYHUB,

ASYREC, and eCITES. Support is coordinated through UNCTAD Headquarters, Regional Centers, and On-site experts, and includes technical assistance, capacity building, and IT procurement.

ASYCUDAWorld continues to evolve, with Version 4.4 launched in 2024 and Version 4.5 scheduled for release in 2025. The upcoming version introduces new AI and machine learning features, such as automated commodity code suggestions, export waybill generation, and enhanced express courier processing. These innovations demonstrate ASYCUDA's commitment to all user countries.

By maintaining parallel support for both legacy and new-generation systems, ASYCUDA offers countries a flexible and inclusive technological roadmap that accommodates varying levels of digital maturity and readiness.

Cloud-enabled and AI-powered, **ASYCUDA New Generation boosts system intelligence,** performance, and responsiveness.

e. Benefits of ASYCUDA New Generation

Table 3
Benefits of ASYCUDA New Generation

Category	Feature / Capability	New Generation
System Architecture	Cloud Readiness	✓
	Microservices-based Architecture	✓
	Commercial Middleware	**Not required**
	Open-source Access	**Full UNCTAD control**
	Modularity / Scalability	**High**
User Interface & Accessibility	Web-native & Responsive User Interface	✓
	Mobile Compatibility	**High**
	Customizability	**Enhanced**
Interoperability & Integration	Integration & Interoperability with External Systems	**Enhanced**
	Multi-agency Integration	**Enhanced**
	Compliance with International Standards & Agreements	**High & Seamless**
Intelligence & Decision Support	AI & ML Integration	**High**
	Risk Management	**Advanced & Seamless**
	Decision-Support & Real-time Dashboards	✓
Security, Control & Traceability	Role-Based Access Control	**High & Dynamic**
	Traceability & Audit Support	**Enhanced**
	Performance Optimization	✓
Performance & Resilience	Data Storage Optimization	✓
	Resilience	**Enhanced**
	System Maintenance & Support	**High & Seamless**

V. Achievements & Highlights

In 2024, ASYCUDA reaffirmed its role as a global driver of digital transformation in trade, delivering measurable impact across continents and policy frontiers. This chapter presents a compelling portfolio of achievements, from pioneering national Single Window systems in the Caribbean and Pacific to unlocking historic revenue gains in Iraq and the Gambia. It captures how ASYCUDA technology is not only modernizing customs operations but also empowering governments to meet international obligations, facilitate and promote international trade, enhance cross-border efficiency, and build institutional resilience. Whether supporting WTO accession in Timor-Leste, advancing regional connectivity in Central Asia, or fortifying disaster response capacity across island states, these highlights demonstrate ASYCUDA's unmatched versatility as a strategic enabler of smarter, faster, and more inclusive trade systems. Together, they underscore the Programme's enduring value as a trusted partner in shaping the future of global trade facilitation.

a. Electronic Single Window for Trade

1. Barbados: Piloting the Barbados Electronic Single Window for Trade (BeSWIFT)

Barbados has been leveraging ASYCUDAWorld since 2019 to enhance trade facilitation, reduce transaction costs and clearance times, increase customs revenues, and improve the accuracy of international trade statistics. Recognizing the broader benefits of customs automation, the Government of Barbados sought to further streamline trade processes, optimize resource allocation, facilitate cross-border trade, and enhance transparency across government agencies.

During UNCTAD15 in 2021, Barbados formalized its commitment to advancing trade digitalization by signing a project agreement with ASYCUDA to develop the Barbados Electronic Single Window for Trade (BeSWIFT). Built on ASYCUDA technology, BeSWIFT is designed to create a unified digital trade environment by integrating 28 government agencies to improve the ease of doing business related to cross-border trade. The Ministry of Energy, Small Business, and Entrepreneurship was appointed as the lead agency for its implementation.

BeSWIFT, powered by ASYCUDA technology, will integrate **28 government** agencies, enhancing trade facilitation in Barbados.

Change Management Strategy & Legislative Framework

A Change Management Strategy (CMS) was implemented, including a capacity-building framework, action plan, change agent roles, control processes, and post-implementation evaluation. A comprehensive communication plan was also introduced to engage internal and external stakeholders effectively. Critical legislative activities supporting BeSWIFT's operationalization were completed.

Business Process Realignment & Piloting

The realignment of business processes under BeSWIFT prioritized the streamlining of licenses, certificates, permits, and other authorizations (LPCO) to enhance trade facilitation. In May 2024, the Barbados Investment and Development Corporation (BIDC) and seven local exporters were integrated into BeSWIFT to pilot the digitalization of the processing of electronic Certificates of Origin. This successful pilot led to the official launch of BeSWIFT in June 2024, with BIDC becoming the first Partner Government Agency (PGA) to join.

During the launch, Senator Lisa Cummins, Minister of Energy and Business, highlighted the electronic Certificate of Origin's role in increasing trade between Barbados and CARICOM states while supporting employment and economic growth[1]. Additionally, the Pesticide Control Unit (PCU) under the Ministry of Agriculture, Food, and Nutritional Security and ASYCUDA developed a module for processing import permit services within BeSWIFT, which was piloted until the end of 2024.

BeSWIFT Web Portal Deployment

29% increase in **trade transactions** in 2024 compared to ASYCUDAWorld's initial launch in 2019.

A dedicated BeSWIFT web portal was developed, serving as a single online access point for application submissions and trade-related services. The portal provides general information about BeSWIFT and links to relevant international trade and border regulatory agencies.

> *When the platform is fully functional, traders and their representatives will be able to complete all regulatory transactions online in a smooth, secure, cashless, paperless environment. Through this seamless platform used to meet regulatory standards, the application process will increase business productivity and decrease costs."*
>
> *Ms. Senator Lisa Cummins*

1 https://caribpix.net/barbados-beswift-platform-being-piloted/

2. Saint Vincent and the Grenadines: Scoping Strategy & Preparatory Work

In 2024, Saint Vincent and the Grenadines launched the Vincy Single Window for Trade (VSWIFT) project to modernize trade processes, improve regulatory efficiency, and enhance inter-agency coordination. Immediately following the launch, a Change Management Symposium was convened to facilitate strategic discussions, promote collaboration among stakeholders, and establish a structured approach for VSWIFT's implementation. The symposium aimed to develop a VSWIFT Change Management Strategy, set priorities for regulatory reform, and strengthen decision-making at the senior management level. It brought together 30 senior public and private sector managers involved in international trade, reflecting the government's commitment to inclusive and transparent policy development.

8.3% increase in **customs revenue** in 2023-2024

Business Process Reengineering and Phase 1 Implementation

Following the symposium, ASYCUDA, the project team, and Partner Government Agencies (PGAs) initiated a Business Process Reengineering (BPR) exercise to assess and optimize existing trade procedures. A functional scoping assessment was conducted to identify and confirm the services to be provided by PGAs in Phase 1 of VSWIFT implementation. This phase includes:

- Launching the Single Window system to streamline trade-related processes.
- Building institutional capacity by training government personnel in the new system.
- Integrating 10 key PGAs, including the Ministry of Trade, Ministry of Health, Treasury Department, and Inland Revenue Department, into VSWIFT.

The second phase will focus on the integration of 6 additional PGAs, such as the Ministry of Finance, Prime Minister's Office, and Energy Unit, and will expand VSWIFT's scope to include port logistics and customs-related services.

Technical Assessment and Infrastructure Readiness

27% increase in **export transactions** in 2023-2024

To ensure seamless implementation, visits to cross-border government agencies and the national IT support agency were conducted to assess the state of ICT infrastructure and readiness for VSWIFT adoption. These evaluations provided recommendations on facility improvements, technical support, and ICT procurement requirements, ensuring that participating agencies are adequately equipped to operate within the Single Window environment.

Legislative Framework and Regulatory Reform

As part of the system's regulatory alignment, the VSWIFT Legal Technical Working Group, under ASYCUDA's guidance, successfully completed the review and consultative process for the VSWIFT Legislative Framework. This initiative involved multiple PGAs and laid the groundwork for the necessary legal adjustments to support VSWIFT's full operationalization.

Knowledge Exchange and Capacity Building

Recognizing the importance of learning from regional best practices, ASYCUDA facilitated a study tour to Jamaica in July 2024 for the VSWIFT National Project Team. The delegation engaged with the Jamaica Customs Agency, gaining insights from Jamaica's successful implementation of the Caribbean region's first ASYCUDA Electronic Single Window for Trade. The study tour helped strengthen institutional knowledge and enhance implementation strategies for VSWIFT.

> *This integrated platform [VSWIFT] will expedite the clearance process, minimize delays, and facilitate smoother trade flows. The ultimate goal is to reduce the bureaucratic burden and create a more conducive environment for businesses to thrive, thereby fostering economic growth."*
>
> *Mr. Selwyn DaSilva, Comptroller of Customs and Excise, during International Customs Day 2025*

3. Timor-Leste: Advancing Global and Regional Trade Integration

Timor-Leste is undergoing a transformational phase in its international and regional integration, with 2024 and 2025 marking significant milestones in its economic and trade development. In August 2024, Timor-Leste became the 166th member of the World Trade Organization (WTO), solidifying its commitment to economic modernization, regulatory reform, and global trade compliance. Additionally, the country is set to become a full member of the Association of Southeast Asian Nations (ASEAN) in 2025, further enhancing its regional economic participation.

WTO Accession and Economic Reforms

Timor-Leste's accession to the WTO reflects years of dedicated efforts to reform its economy, modernize trade processes, and align with international standards. The government has undertaken comprehensive reforms, including:

- Acceptance of WTO agreements, such as the Trade Facilitation Agreement (TFA) and the Fisheries Subsidies Agreement.
- Strengthening regulatory transparency, including improved notification and information-sharing mechanisms.
- Advancing trade digitalization, enhancing data exchange, licensing procedures, and document processing efficiency.

UNCTAD's ASYCUDA technical assistance has been instrumental in this transformation, with the implementation of ASYCUDAWorld and the Timor-Leste Single Window for Trade Facilitation (TileSW) playing a critical role in streamlining customs and trade procedures, automating trade documentation, and ensuring regulatory compliance.

TileSW has **reduced physical trips** between government agencies by 91% and **cut printed documents** by 85%.

ASEAN Integration and Regional Trade Facilitation

Timor-Leste is preparing for full ASEAN membership in 2025 by meeting the accession criteria set by ASEAN members. In support of this, the government has focused on economic diversification, particularly in agriculture for food security and integrating regional markets through the adoption of the Single Window system.

A key milestone in this process has been the integration of the National Directorate of Quarantine and Biosecurity (NDQB) under the Ministry of Agriculture and Fisheries into TileSW. Since joining in 2022, NDQB has been responsible for processing permit requests for plant and animal imports and exports to protect the nation's agriculture. The efficiency of permit processing improved significantly, reducing turnaround time from over one week to less than two days.

Further reinforcing its regional trade integration, in 2024, TileSW was successfully linked with the ASEAN Single Window (ASW) through the electronic exchange of Certificates of Origin under the ASEAN Trade in Goods Agreement (ATIGA). This integration facilitates preferential tariff treatment, enabling seamless trade between Timor-Leste and other ASEAN member states.

Enhancing Trade Facilitation and Digital Payments

Processing of permit requests for plant and animal imports and exports was **reduced by 71%, from 1 week to 2 days.**

The ASYCUDA TileSW project has continued to expand, bringing additional government agencies into the system. In 2024, three Partner Government Agencies (PGAs) were successfully onboarded:

- National Authority for Petroleum and Minerals, overseeing the importation of fuel and lubricants.
- National Directorate of Land Transport's Vehicle Registry System, recording cross-border vehicle movements with Indonesia.
- National Directorate of Pharmacy and Medicine under the Ministry of Health, responsible for medicine import authorization and registration.

To further enhance trade facilitation, electronic payment integration with Timor-Leste's Central Bank P24 platform was implemented in 2024. This upgrade has allowed customs clients to pay duties and taxes via automated teller machines (ATMs), reducing delays and streamlining clearance procedures.

To build institutional capacity, ASYCUDA organized and delivered ASYCUDAWorld Advanced Functional Training for customs officers, focusing on skills enhancement, knowledge sharing, and strengthening Single Window operations.

During UNCTAD's 60th Anniversary in 2024, Timor-Leste's Prime Minister, Kay Rala Xanana Gusmão, reaffirmed the country's commitment to self-driven development, stating: "Development can only be successful if it is country-owned and country-led."

Outlook

Timor-Leste and ASYCUDA will continue their collaboration to enhance digital government services, facilitate trade, modernize institutions, and support the implementation of international and regional agreements.

> *In Timor-Leste, ASYCUDA has proven effective in issuing permits and controlling the trade of sensitive materials, ensuring that countries remain compliant with international agreements."*
>
> *allAfrica.com*

4. Zimbabwe: Digital Integration in Regional and Bilateral Trade

Revenue collected by ZIMRA in 2024 exceeded targets by **more than 4.5%.**

Zimbabwe has made significant strides in digitalizing trade processes and enhancing compliance with regional and bilateral trade agreements through the Zimbabwe e-Single Window (ZeSW). Built on ASYCUDA technology, ZeSW officially went live in September 2023, with the Ministry of Health's Port Health Authority becoming the first Partner Government Agency (PGA) to issue permits on the platform. The system continued to expand in 2024, with the Zimbabwe Revenue Authority (ZIMRA) and the Radiation Protection Authority of Zimbabwe successfully onboarded.

Digitalization of Preferential Certificates of Origin

A major milestone in 2024 was the automation of the request and issuance process for preferential certificates of origin on ZeSW. With this advancement, importers now automatically benefit from preferential duty rates as soon as their preferential certificates of origin are granted on the platform.

Developed by ZIMRA with ASYCUDA's technical assistance, the module was officially launched in September 2024, facilitating the implementation of seven regional and bilateral trade agreements:

- Common Market for Eastern and Southern Africa (COMESA)
- Botswana-Zimbabwe Bilateral Agreement
- Malawi-Zimbabwe Bilateral Agreement
- Mozambique-Zimbabwe Bilateral Agreement
- Namibia-Zimbabwe Bilateral Agreement
- Zimbabwe's Differentiated Offer for South Africa
- Southern African Development Community (SADC) Trade Agreement

To ensure smooth adoption, 803 customs staff and economic operators were trained in using the new system.

Automated Inspection for Second-Hand Vehicle Imports

In October 2024, ZeSW expanded its capabilities by integrating an automated inspection process for second-hand vehicles imported from Japan to screen for radioactive contamination. This module was developed collaboratively by ZIMRA, the Radiation Protection Authority of Zimbabwe, and ASYCUDA. A total of 345 users were trained to operate the system, improving compliance and safety measures for vehicle imports.

Introduction of Online Mobile Payments

In December 2024, ZeSW introduced online mobile payment functionality, allowing importers, agents, and exporters to complete payments for assessed documents from multiple government agencies in a single transaction. This enhancement supports transactions in both US dollars and local currency, streamlining trade-related financial processes.

IT Infrastructure Enhancements

To enhance system performance and support the increasing volume of trade transactions, ZIMRA and ASYCUDA upgraded the operational databases of ZeSW and ASYCUDAWorld in 2024. These upgrades ensure greater efficiency, stability, and scalability of the e-Single Window platform.

ZIMRA aims for an ambitious **revenue increase** of over **15%** in 2025 compared to 2024.

More than **1,100 government staff** and economic operators **were trained in 2024** on the efficient use and configuration of ZeSW.

> *ASYCUDA is a fundamental driver for trade and development in countries. Zimbabwe has witnessed a 379% increase in monthly fees collected by the Port Health agency since its onboarding into ZeSW."*
>
> *Mr. Nesbert Samasuwo, Charge d'Affaires a.i. of the Permanent Mission of Zimbabwe, during UNCTAD's Trade and Development Commission (April 2024).*

b. ASYCUDA Customs Digitalization

Customs revenue increased by 192% between 2022 and 2024 following ASYCUDAWorld piloting in October 2023.

1. Iraq & Gambia: Strengthening Revenue Collection Through Customs Digitalization

The implementation of ASYCUDAWorld in Iraq and Gambia has played a critical role in modernizing customs operations, increasing revenue collection, and enhancing trade efficiency. By replacing manual customs procedures with automated, paperless processes, both countries have streamlined trade operations while significantly boosting customs revenue.

Iraq: Robust Revenue Increase and Nationwide Rollout

The rollout of ASYCUDAWorld in Iraq has been accompanied by comprehensive customs process reforms, including legal revisions, process reengineering, reduced human interaction, and enhanced automation. These efforts were supported by the procurement of modern equipment, strong government and customs mobilization, and extensive capacity-building programs for local customs officers and economic operators.

Following the successful piloting of ASYCUDAWorld at Baghdad International Airport in October 2023, Iraq saw a 28 per cent increase in customs revenue in 2023 compared to 2022. The objective for 2024 was to have ASYCUDAWorld operational in 50 per cent of Iraq's customs offices. By the end of Q3 2024, the system was fully deployed in the nine largest customs offices, covering 81 per cent of Iraq's international trade by volume. These offices include key border crossings with Kuwait, Jordan, and Saudi Arabia, as well as the port of Umm Qasr, Iraq's primary gateway to the Persian Gulf.

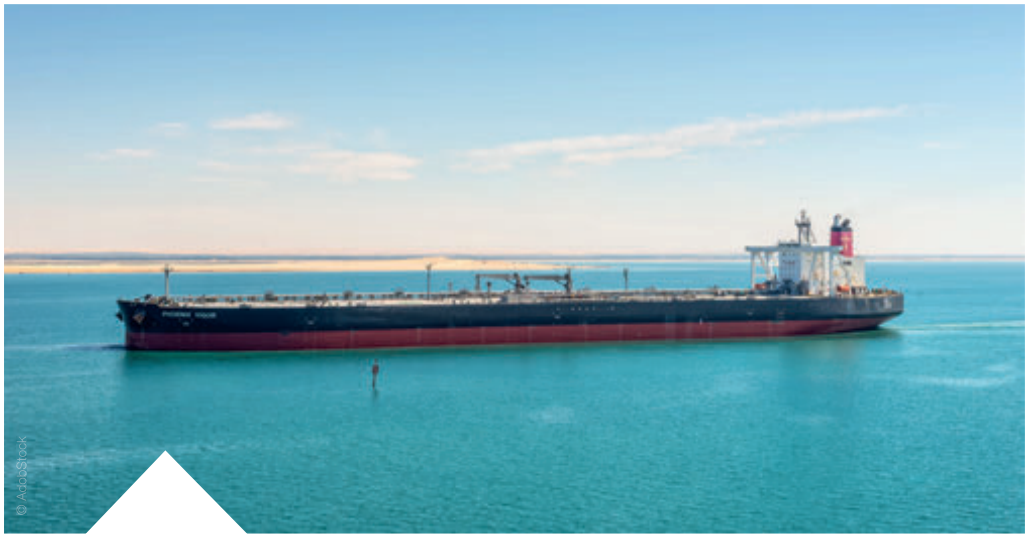
By the end of 2024, ASYCUDAWorld had been implemented in 15 customs offices, covering over 90 per cent of Iraq's foreign trade. As a result, Iraq's Customs Authority reported a record customs taxes and duties collection, marking a 128 per cent increase compared to 2023[2].

To further enhance trade efficiency, Iraq fully suspended manual customs declarations and paper-based processes on January 1, 2025, transitioning to a fully electronic customs declaration system. An e-payment solution was also integrated into ASYCUDAWorld, allowing seamless digital payments for duties and taxes. These modernization efforts set the stage for the nationwide deployment of ASYCUDAWorld in all customs offices in 2025 and the future development of an ASYCUDA-based Single Window.

> *The full automation of Iraq's customs using the UN's ASYCUDA platform marks a major leap in our economic reform efforts. It has transformed operations at key border points, boosting transparency and efficiency. In 2024 alone, customs revenues surged by 128%, a clear sign of its impact"*
>
> *H.E. Mohammed Shia' Al-Sudani, Prime Minister of the Republic of Iraq.*

2 https://ina.iq/eng/39166-al-sudani-affirms-governments-readiness-to-support-all-local-and-international-entities-in-developing-the-banking-sector.html

Gambia: Consistent Growth and Revenue Optimization



The Gambia Revenue Authority (GRA) launched ASYCUDAWorld in June 2022, setting the foundation for a more efficient and transparent customs administration. By automating key processes and strengthening revenue collection mechanisms, Gambia experienced a 23 per cent increase in customs revenue in 2023 compared to 2022.

In 2024, GRA collected $302 million in customs revenue, marking an impressive 32 per cent growth compared to 2023. The initial annual target was surpassed by 8 per cent, reflecting the system's effectiveness in enhancing compliance, reducing delays, and optimizing trade operations. Announcing these results, GRA Commissioner General Yankuba Darboe praised ASYCUDAWorld's contribution as "immense", highlighting its role in improving efficiency, transparency, and revenue collection.

Customs revenue increased by 62% between 2022 and 2024 following ASYCUDAWorld's launch in June 2022.

Outlook

With the continued expansion of ASYCUDAWorld in Iraq and Gambia, both countries are positioned to further strengthen trade facilitation, improve revenue collection, and enhance operational efficiency. The transition to fully digital customs procedures, integration of e-payment systems, and expansion of automation will support long-term economic growth and trade competitiveness.

2. Democratic Republic of the Congo, Eswatini, and Zambia: ASYCUDAWorld Upgrade & Support Continuity

UNCTAD's ASYCUDA Programme continues to research and develop new technologies to enhance customs digitalization and trade efficiency. While new solutions are being introduced, ASYCUDA remains committed to supporting, maintaining, and upgrading ASYCUDAWorld for user countries.

In line with this commitment, ASYCUDAWorld version 4.4 was released at the end of 2023, incorporating international standards, best practices, and feedback from user governments. This version introduces key functional enhancements, including dynamic selectivity for risk-based fraud detection, an improved user experience, and enhanced reporting tools for customs controls.

Democratic Republic of the Congo: First Implementation of ASYCUDAWorld 4.4

More than **20 customs officers** received ASYCUDAWorld technical and functional **training** in 2024.

8% increase in **customs revenue** in Q1 2025 compared to Q1 2024[3]

In October 2024, the Democratic Republic of the Congo (DRC) became the first country to migrate to ASYCUDAWorld version 4.4. The migration was led by the IT customs team, with technical and operational support from ASYCUDA experts both on-site and at UNCTAD headquarters.

Features developed in-country within the upgrade include:

- Implementation of dynamic selectivity, an automated system that assesses the fraud risk of customs declarations by analyzing historical data.
- Deployment of a mobile interface, enabling customs officers to report examination results directly, improving efficiency and accessibility for all economic operators.

To ensure effective system use and maintenance, ASYCUDA conducted four technical and functional training sessions for the IT and customs teams in 2024.

Eswatini: System Migration and Customization

63 customs officers, 43% of whom are women, **received training** on ASYCUDAWorld version 4.4 in 2024.

12% increase in **revenue collected** by the Eswatini Revenue Service in 2023-2024

Eswatini successfully migrated to ASYCUDAWorld version 4.4 in December 2024, incorporating locally developed modules tailored to national requirements. These include:

- Import Permit Management
- Electronic Certificate of Origin (e-CO)
- Customs Clearance Certificate
- Workflow Management System

Before going live, the local customs team and ASYCUDA experts conducted readiness and stability assessments to ensure a seamless transition. Additionally, the system was configured to exchange data with the International Air Transport Association (IATA), enhancing airline cargo and express shipment processing.

Between April and July 2024, ASYCUDA conducted basic and advanced functional courses, along with one technical training session, equipping the local team with comprehensive knowledge of version 4.4.

Zambia: Strengthening Security and Trade Efficiency

3 https://www.bcc.cd/system/files_force/publications/note_de_conjoncture_economique_hebdomadaire_du_04_avril_2025.pdf/?download=1

Zambia upgraded its ASYCUDAWorld environment and software in December 2024, introducing several key enhancements:

- One-Time Password (OTP) authentication, improving system security.
- Courier manifest functionality, streamlining express shipment processing.
- Development of a Passenger Clearance module, improving border control efficiency.
- Upgraded data exchange channel with IATA, further integrating air cargo management.

To facilitate adoption, awareness and training sessions were delivered to 92 clearing and forwarding industry participants, alongside technical and functional ASYCUDAWorld training for 51 Zambia Revenue Authority staff.

In 2024, ASYCUDA **trained 51 Zambia Revenue Authority staff** and 92 industry stakeholders on the upgraded system.

6% annual increase of **export transactions** between 2020 and 2024.

Outlook

With the successful deployment of ASYCUDAWorld version 4.4, DRC, Eswatini, and Zambia are now equipped with enhanced digital tools to improve customs efficiency, risk management, and trade transparency. Continued collaboration with ASYCUDA will ensure further system optimization and support for future digitalization initiatives.

3. Kazakhstan: Strengthening Digital Customs Cooperation and Trade Efficiency

In October 2024, Kazakhstan and UNCTAD's ASYCUDA Programme marked seven years of successful cooperation, underscoring a longstanding partnership that has significantly advanced customs modernization and trade digitalization. The collaboration between the State Revenue Committee (SRC) of the Ministry of Finance of Kazakhstan and ASYCUDA has led to the nationwide implementation and continuous enhancement of ASTANA-1, a powerful customs management system built on ASYCUDAWorld technology and software.

ASTANA-1: A Digital Customs Solution for a Landlocked Country

Transit time delays at road border crossing points were impeding export-led growth in Kazakhstan. To address this, the SRC and ASYCUDA launched ASTANA-1 in October 2017. This system enables end-to-end electronic processing of customs information, reduces border compliance times, and promotes the application of best commercial practices in line with the WTO Trade Facilitation Agreement (TFA) and WCO standards.

ASYCUDA-Based Single Window for Trade

In 2019, Kazakhstan expanded its digital infrastructure by launching an ASYCUDA-based Single Window, enabling importers and exporters to submit regulatory documents electronically once, thus reducing transaction costs and improving efficiency.

As the former Vice Minister of Finance noted: *"With the Single Window, traders will no longer need to run around different authorities to collect documents and seek permissions."*

System Integration and Regional Connectivity

ASTANA-1 and the Single Window have been integrated with key national systems, including:

- The electronic licensing platform, enabling applications for 500 types of business activities in industry, construction, and trade.
- The National Bank of Kazakhstan, supporting electronic payments.
- The national postal service, facilitating and monitoring e-commerce flows.

These platforms also exchange electronic data with international systems, including those of:

- Eurasian Economic Union (EAEU) member states
- The International Road Transport Union (IRU)
- Azerbaijan, China, Georgia, and Uzbekistan

These connections have improved transit procedures and enhanced Kazakhstan's role as a regional logistics and trade hub.

COVID-19 Response and Business Continuity

During the COVID-19 pandemic, ASTANA-1 enabled remote working for brokers and customs officials, allowing continuity of customs operations. The system also supported the automatic application of emergency measures, including tax incentives for the import of essential goods.

Quantifiable Results

Transit declaration **processing time** has been **reduced by 67%**, from 90 minutes to 30 minutes.

Since its inception in 2017, ASTANA-1 has:

- Processed over 3.5 million declarations and 11 million transit declarations
- 67 per cent reduction in declaration processing time (from 1.5 hours to 30 minutes)
- Cut e-commerce document processing time at the national postal office to just 5 minutes[4]
- 71 per cent increase in export transactions in 2017-2024[5]

4 https://www.gov.kz/memleket/entities/kgd/press/news/details/879930?lang=ru
5 https://unctadstat.unctad.org/datacentre/dataviewer/US.TradeMerchTotal

Enhancements and Technical Support in 2024

In 2024, ASTANA-1 was further enhanced through:

- Automated management and monitoring of payment and guarantees
- Integration with the National Railway Company
- Further alignment of customs declaration processes with national and EAEU legislation

At the request of the Government, ASYCUDA extended its technical support, enabling continuous improvements to ASTANA-1 and reinforcing the sustainability of this digital transformation.

Outlook

Kazakhstan is well positioned to build on the progress made through ASTANA-1 and its Single Window system by expanding automation and deepening integration with regional and international trade platforms. With continued technical support from ASYCUDA, further enhancements are expected to streamline multimodal logistics, strengthen data exchange, and align with evolving trade standards. These efforts will reinforce Kazakhstan's role as a strategic transit and trade hub in the region.

4. Pacific: Strengthening Regional Digitalization Through ASYCUDAWorld

The year 2024 marked a major milestone in regional trade digitalization across the Pacific with the successful implementation of ASYCUDAWorld in Palau in January, the Federated States of Micronesia (FSM) from March to April, and the Marshall Islands from May to September. As of September 2024, all 15 Pacific countries and territories, including the Cook Islands, Fiji, Kiribati, FSM, Marshall Islands, Nauru, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu, are operational with ASYCUDAWorld, supporting customs digitalization, regional harmonization, and economic development.

Palau: First Government Agency to Go Fully Digital

Palau Customs transitioned to ASYCUDAWorld in January 2024, with the system officially launched by President Surangel S. Whipps Jr. who emphasized that the platform automates international trade and elevates Palau to global standards. The Deputy Head of the EU Delegation for the Pacific, Dr. Erja Askola, praised ASYCUDA for helping reduce paperwork and delays, aligning with the EU's trade facilitation goals. ASYCUDAWorld became the first system in the country to introduce real-time online payments, eliminating the need for physical visits to the customs office. It is expected to save brokers over 1,000 dollars annually in paper-related costs and has already led to a year-on-year revenue increase exceeding 20 percent.

Palau reported a more than **20 percent year-to-year revenue increase** following AW.

In the final quarter of 2024, under the EU-funded IMPACT project, Customs received an advanced server to host ASYCUDAWorld, improving database management, transaction processing, and communication with stakeholders.

Federated States of Micronesia (FSM): Boosting Efficiency Across States

In FSM, ASYCUDAWorld was first piloted in Pohnpei State in March 2024, followed by its rollout to Yap, Chuuk, and Kosrae in June. An eight-day training session was

delivered by the national project team to help stakeholders fully understand the system. Alvin Cholymay, an agent at Transco Agencies, noted that tailored training for different user groups was critical for success.

FSM Customs officials have already reported reduced processing times, with Customs Operations Manager Ms. Lorina Seady highlighting faster clearance. As the largest country in the Micronesian sub-region, spanning over 600 islands, FSM sees ASYCUDAWorld as vital for lowering trade costs and supporting economic diversification.

215 training sessions were **delivered to stakeholders** in the Marshall Islands between September 2023 and May 2024.

Marshall Islands: Raising Standards and Capacity

The Marshall Islands launched ASYCUDAWorld in Majuro in May 2024 and in Ebeye in September 2024 to align customs operations with international standards, including the Harmonized System for goods classification. During the launch, Finance Secretary Ms. Ayako Yamaguchi-Eliou stated that automation would enhance the productivity of the Customs Division and the accuracy of trade data collection. EU Head of Cooperation Mr. Maurizio Cian called ASYCUDAWorld a win-win for governments, private operators, and trade partners[6].

Between September 2023 and May 2024, the Marshall Islands conducted approximately 215 training sessions for external stakeholders, ensuring that users were well-versed in the system's requirements and customs procedures.

Vanuatu Customs reached **VT1 billion in revenue** for six consecutive months.

Regional Support, Legal Reform and Training

At the regional level, ASYCUDA organized a two-week training session on automated reporting for 11 customs officials from Fiji, Papua New Guinea, Samoa, Solomon Islands, and Vanuatu, aimed at enhancing analytical capacity using ASYCUDAWorld data.

In collaboration with the Oceania Customs Organization (OCO), a comprehensive customs procedural and legal gap analysis was conducted in August 2024, benchmarking laws of the 15 Pacific countries against the WTO Trade Facilitation Agreement and

6 https://b43857c0-ff65-4f8c-937a-260d3475dc51.usrfiles.com/ugd/b43857_a4eac58fa3b347ee87e48010676db63f.pdf

the Revised Kyoto Convention. The review found that over 80 percent of legislation aligns with international standards and led to a regional workshop on business process reengineering and legal reform, facilitating coordinated national updates to outdated policies and procedures.

Outlook

With ASYCUDAWorld now operational across all Pacific Island countries and territories, the region is poised to deepen regional trade harmonization, modernize customs legislation, and enhance data-driven governance. Continued capacity-building, system upgrades, and legal reforms are expected to further reduce trade costs and unlock economic potential across the Pacific.

> *With ASYCUDA, things have really changed. Before it took us a week to clear all shipments, and now it takes us only a couple of days."*
>
> *Ms. Rushlyn Ueki, declarant at Surangel & Sons Company*

c. Specialized Platforms for Trade Facilitation

1. Afghanistan: Leveraging Customs Digitalization for Relief, Recovery and Resilience

In 2021, Afghanistan Customs, in collaboration with UNDP, requested technical assistance from ASYCUDA to develop a dedicated digital system to streamline the processing and clearance of exempted and humanitarian consignments from UN agencies, humanitarian organizations, and NGOs. This led to the launch of the ASYCUDA Exemption System in 2022, built on ASYCUDAWorld technology to ensure faster, more transparent, and accountable movement of relief goods across the country.

93% reduction in **exemption documentation** requirements (from 14 documents to 1)

12,860 trucks and declarations processed for **humanitarian exemptions** in 2024

Streamlining Humanitarian Operations Through Automation

In 2024, the ASYCUDA Exemption System was maintained and enhanced by ASYCUDA technical experts to ensure uninterrupted 24/7 nationwide operation. The system transitioned from a semi-online to a fully automated platform, drastically accelerating the clearance of humanitarian consignments and reducing manual paperwork.

A review of the governing legal framework reduced the number of required documents for processing exemptions from 14 to just one, a 93 per cent reduction, significantly easing the burden on humanitarian actors and customs staff alike.

To further streamline processes, a data exchange interface was implemented between the ASYCUDA Exemption System and the Declaration Processing System, allowing for real-time coordination. Additionally, a dedicated online reporting module was introduced, enabling customs authorities to monitor humanitarian shipments, generate reports, and analyze trends in real time.

Facilitating Emergency Response at Scale

Over **USD 500,000** worth of goods and **350,000 kg exempted** from duties.

Over the course of 2024, Afghanistan Customs processed 12,860 exemption declarations, corresponding to 12,860 humanitarian aid trucks submitted by 12 UN agencies, including FAO, UNDP, UNHCR, UNICEF, WFP, and WHO. These consignments accounted for goods valued at over USD 500,000 and weighing more than 350,000 kilograms, all exempted from duties and taxes through the system.

Processing time reduced by 97% in regional customs offices (from 3 days to 2 hours).

Customs HQ processing time decreased from 10 days to a few hours.

Processing times saw a dramatic improvement:

- At Customs Headquarters, average processing time dropped from 10 days to just a few hours
- In regional customs offices, clearance time fell by 97 per cent, from three days to two hours

These advances have significantly accelerated the delivery of life-saving goods while increasing transparency and reducing the logistical burden on humanitarian agencies.

Driving Local Economic Inclusion Through Trade

200+ MSMEs supported, including **55% women-led enterprises trained**. on trade procedures

ASYCUDA's influence extended beyond humanitarian relief to support inclusive economic empowerment, particularly for women-led micro and small enterprises. In Helmand, Nangarhar, and Nimroz, more than 200 MSMEs, 55 per cent led by women, were trained in business development, customs procedures, and financial literacy.

A notable example comes from Navroz Province, where a woman entrepreneur launched a small textile business with just 1,000 Afghanis and a second-hand sewing machine. Supported by targeted training and enabled by simplified customs procedures through ASYCUDA, she was able to engage in cross-border trade for the first time. Her experience reflects the transformative potential of digital trade systems in empowering women and expanding economic opportunity in underserved regions.

Local authorities reported that entrepreneurs were trained to manage capital, track income and expenses, and develop viable business plans, laying the groundwork for more resilient local economies in difficult operating environments.

Outlook

Afghanistan's continued partnership with ASYCUDA is expected to strengthen the country's capacity to deliver humanitarian assistance efficiently and broaden access to trade for underserved communities. Future priorities include improving data integration, expanding system interoperability, and deepening support for women entrepreneurs and small businesses through inclusive digital trade frameworks.

> *We learned how to create weekly, monthly, and yearly business plans, calculate capital losses, determine profits and losses, and differentiate between fixed and variable costs. This knowledge is crucial for our business success."*
>
> *Sola Safai, Female Entrepreneur,*
> *Eastern Region-Nangarhar province*

2. Cambodia: Pre-Arrival/Departure Processing of Consignments through ASYHUB

In response to global supply chain security protocols and evolving trade dynamics, Cambodia Customs, in collaboration with ASYCUDA and supported by GIZ, successfully implemented ASYHUB, a digital platform enabling the electronic exchange of advance data (EAD) for maritime, postal, and express consignments. The deployment of ASYHUB enhances Cambodia's capacity to conduct early security risk assessments, improve border clearance efficiency, and align with international best practices in cross-border trade facilitation.

Seamless Advance Processing Across All Modes of Delivery

Cambodia is among the first countries to fully implement all three components of ASYHUB, facilitating secure, real-time data exchange between customs and transport operators across various modes of delivery.

- **ASYHUB Postal** was officially launched on 14 December 2023, linking ASYCUDAWorld with the Universal Postal Union's CDS (Customs Declaration System). From 1 January to 30 November 2024, nearly 100,000 postal consignments were submitted and processed. This achievement was recognized at the 2024 UPU TradePost Awards, where Cambodia Post was honored for successfully implementing this advanced digital interface.
- **ASYHUB Maritime** was piloted in Sihanoukville on 1 March 2024 and expanded to Phnom Penh on 1 April 2024. By 30 November 2024, the system had processed close to 3,000 cargo manifests and 200,000 maritime consignments, facilitating smoother port operations through pre-arrival electronic submissions from shipping agents and companies.
- **ASYHUB Express** was piloted on 1 September 2024 and fully rolled out to all express courier operators by 1 October 2024. In just three months, more than 85,000 express consignments were processed through the platform.

More than 400,000 consignments processed before arrival or departure using ASYHUB in 2024.

Full integration achieved across **maritime, postal,** and **express** sectors with national and international platforms.

Customs revenue increased by approx. 14 per cent in 2024, supported by enhanced. digital systems

The widespread adoption of ASYHUB's pre-arrival and pre-departure processing has contributed to a broader strengthening of customs operations. The platform's support for early data exchange, streamlined declarations, and targeted inspections has coincided with a 13.8 per cent increase in customs revenue in 2024[7], despite persistent global economic uncertainties. This growth was fueled in part by rising import demand for raw materials used in the domestic production of export goods. The improved digital infrastructure facilitated by ASYHUB also helped boost transparency and compliance, while reducing administrative delays.

Outlook

With over 400,000 consignments processed before arrival or departure in 2024, Cambodia is well positioned to scale ASYHUB's use across additional entry points and integrate more actors in the logistics chain. As ASYHUB continues to evolve, further automation and interoperability with international platforms will reinforce Cambodia's position as a leader in digital border modernization in Southeast Asia.

> *According to the Director-General of the General Department of Customs and Excise, the revenue performance achieved in 2024 stands as a significant milestone for the country. He noted that the effective implementation of electronic trade systems such as ASYHUB played a key role in modernizing customs operations and reaffirmed the government's commitment to continued reform through enhanced governance, institutional upgrading, and stronger cooperation with both public and private sector actors.*

7 https://www.phnompenhpost.com/business/customs-revenue-increases-by-over-10-in-2024

3. Pacific: Building Disaster Readiness Through ASYREC Simulations

57 participants from 14 Pacific Island countries **trained on ASYREC**

In a region highly vulnerable to climate-related disasters, effective management of emergency consignments is not just critical but lifesaving. In 2024, ASYCUDA led the way in strengthening disaster preparedness across the Pacific by organizing two regional ASYREC awareness and simulation workshops. These sessions brought together a total of 57 participants from 14 Pacific Island countries, including the Cook Islands, Fiji, Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

Workshop I: Strengthening Preparedness Through Practical Training

Held in Fiji from 5 to 8 March 2024, the first workshop aimed to strengthen national capacities to facilitate the clearance of humanitarian consignments during crises such as natural disasters or pandemics. ASYCUDA experts introduced the scope, benefits, and international relevance of ASYREC and conducted a full technical demonstration of the system. The training covered system navigation, reference data loading, and operational workflows for relief processing.

Participants received a detailed presentation of ASYREC's phased architecture:

- Phase 1: **Readiness and Preparedness**
- Phase 2: **Emergency Response**
- Phase 3: **Termination of Emergency**

A representative from Vanuatu Customs shared the country's implementation journey, highlighting project milestones, current activities, challenges encountered, and strategic recommendations for other Pacific countries considering the system.

To solidify understanding, a three-day simulation exercise was conducted, based on a real-time scenario involving two approaching tropical cyclones expected to cause

severe flooding and storm surges in Vanuatu. The simulation included the creation and authorization of relief operators, validation of emergency declarations, prioritization of essential commodities and emergency durations, application of risk analysis settings, configuration of selectivity criteria, and lodging of simplified declarations.

Median understanding rating improved from 8 to **8.5/10 between workshops.**

Feedback from the workshop was highly positive:

- 80 per cent of participants reported improved capacity to facilitate relief consignments
- 67 per cent rated their understanding of ASYREC as 8/10 or higher, with a median score of 8/10

Participants also provided recommendations and requested system improvements. A satisfaction survey distributed to all 27 attendees showed strong support for the workshop format and content.

Workshop II: System Refinement and Multi-Hazard Emergency Simulation

A second workshop was held in Fiji from 7 to 11 October 2024, with the participation of 30 officials from the same 14 countries. This session was co-organized by ASYCUDA and the Trade Facilitation Branch and aimed to refresh and deepen participants' knowledge while addressing the recommendations raised during the first event.

82% of participants confirmed ASYREC's usefulness for national emergency import operations.

87% rated the overall quality of the workshops as 8/10 or higher.

The workshop also served as a platform to position ASYREC within the broader Trade Facilitation ecosystem, underscoring its alignment with the WTO Trade Facilitation Agreement, UNDA-supported initiatives, and crisis-responsive trade reforms. Participants explored how ASYREC contributes to building resilient, coordinated, and transparent supply chains for emergency goods, especially in small island developing states.

A new simulation was conducted using a more complex, multi-hazard disaster scenario involving a volcanic eruption, earthquake, and tsunami affecting Vanuatu. This exercise tested the full range of ASYREC functionalities under pressure, including customs coordination, data management, and clearance prioritization in a cascading disaster setting.

Participants responded with enthusiasm and confidence:

- 71 per cent rated their ASYREC understanding as 8/10 or higher, a notable improvement from the first workshop.
- 82 per cent agreed that ASYREC would be useful in facilitating emergency imports in their own countries.
- The median rating increased to 8.5/10, confirming deeper learning outcomes.

Outlook

With over 50 disaster management professionals trained across two intensive workshops, the Pacific region is now better equipped to deploy ASYREC for fast, coordinated, and transparent relief consignment management.

ASYCUDA will continue to support countries in refining national implementation strategies, customizing the ASYREC platform, and embedding it within digital governance and trade resilience frameworks. Future steps include broader inter-agency coordination and follow-up technical assistance to ensure that ASYREC becomes a fully operational component of Pacific crisis management protocols.

unctad.org

asycuda@unctad.org asycuda.org @unctad asycuda

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