

Guidance on

# Streamlining National ODS/HFC Licensing System

in Asia and the Pacific



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The project was managed by Mr. Pipat Poopeerasupong, Interim Montreal Protocol Regional Coordinator, Southeast Asia, and Pacific Island Countries, UNEP OzonAction, ROAP. At ESCAP, the work was carried out by Mr. Tengfei Wang, Economic Affairs Officer under the general guidance Mr. Yann Duval, Chief of Trade Policy and Facilitation Section. Substantial contribution was made by the following staff from UNEP OzonAction:

- Mr. Pipat Poopeerasupong, Interim Montreal Protocol Regional Coordinator, Southeast Asia, and Pacific Island Countries
- Ms. Elisa Rim, Interim Montreal Protocol Regional Coordinator South Asia Countries
- Ms. Anne-Maria K. Fenner, Information Manager
- Mr. Andrea Ossi-Perretta, Programme Management Officer
- Ms. Vika Rogers, Programme Management Officer
- Ms. Nanon Issaratarangkul, Communications and Outreach Consultant

Mr. Arman Manukyan provided initial draft and revisions to this Guidance.

This Guidance was designed by Ms. Dominic Ríos.

# 1

## Introduction

The guidance is designed to assist the governments of developing countries (“Article 5 countries” under the Montreal Protocol on Substances that Deplete the Ozone Layer) in devising strategies for digital solutions in electronic import/export licensing systems to enhance monitoring, reporting, verification, and enforcement (MRVE) of licensing system of controlled substances under the Montreal Protocol. The key functions of these systems include facilitating interactions and information sharing among licensing authorities, importers, exporters, and Customs.

The target audience is government officers responsible for operating licensing systems for substances controlled under the Montreal Protocol. The guidance offers an overview of available options and recommendations for Ozone-Depleting Substances (ODS) and hydrofluorocarbon (HFC) import/export control processes and how to integrate them with other online systems used for national-level international trade.

Recommendations to overcome the challenges faced by Article 5 countries in implementing MRVE systems for ODS/HFC licensing systems are also elaborated. The recommendations are based on the actual experience from various developed and developing countries where import and export licensing systems are already integrated or interfaced with electronic platform such as National Single Window (NSW) system or Customs Automation Management (CAM) system.



# 2

## Overview of ODS/ HFC import/export licensing system

### 2.1 Licensing system

Establishing an import and export licensing system for controlled substances is a requirement for all Parties to the Montreal Protocol. After ratifying the Montreal Protocol, countries must introduce licensing systems to control both the import and export of ODS and HFCs<sup>1</sup>. The Montreal Protocol Parties' national regulatory frameworks generally specify that the imports or exports of ODS/HFC cannot take place unless the potential importer or exporter first applies for and obtains an appropriate license. The control of ODS/HFC imports and exports enables the government to monitor the country's total ODS/HFC consumption. The licensing authority, either the National Ozone Unit (NOU) or other designated government departments, issues ODS/HFC licenses based on the evaluation of the applications submitted by businesses willing to import or export controlled substances. Government officials need information about the quantities of controlled ODS/HFC imported and exported so they can control the total quantities of ODS/HFC imported and export at the national level in accordance with obligations, report the country's consumption to the Ozone Secretariat as required under the Montreal Protocol and help to combat illegal trade.

<sup>1</sup> HFCs are controlled under the Kigali Amendment to the Montreal Protocol. Parties to the Montreal Protocol who have ratified the Kigali Amendment are required to include HFCs in their import and export licensing system.



## Licensing schemes of controlled ODS/HFC vary by country.

The validity period and the number of authorized shipments against the issued license are the most indicative distinctions among licensing systems, the most common licensing types are **per-shipment** and **multi-shipment**.

The import or export of substances is only allowed during the period of validity of the license.



### PER-SHIPMENT LICENSE

An importer must apply for a per-shipment license from designated licensing authority before arrival of each shipment. A **per-shipment** license is usually valid for a short period and for the clearance of one single shipment.

### MULTI-SHIPMENT LICENSE

A **multi-shipment** license is usually valid for one year or less e.g., from the date of authorization to the end of each calendar year given that the Montreal Protocol control measures follow calendar year. It may be used multiple times during that time up to a cumulative import amount usually clearly indicated in the license. As the license is for multiple shipments, it is essential for the licensing authorities and the Customs Authority to keep track of incremental quantities to ensure that the cumulative quantity would not exceed the quantity indicated in the license. Some multi-shipment license may have specific validity periods i.e., quarterly, and half-year depending on country's regulation.



The ODS/HFC licensing process may be paper-based, paperless, or hybrid (semi-automated). A paper-based approach is often associated with slower processes, more administrative resources, and a higher risk of inefficiency, e.g., lost documents, incomplete paperwork, and inaccurate or inconsistent data due to difficulties in cross checking. Therefore, there is a tendency for more and more countries worldwide to use digital solutions to manage import licensing procedures and speed up the processing of applications.

Operation and enforcement of ODS/HFC licensing system involve several stakeholders. The key stakeholders are

the NOUs or other competent agencies, the licensing agency (if different from the NOUs), and the Customs. Sound cooperation between NOUs or other designated government departments and the Customs administrations is crucial for implementing a country's responsibilities in implementing the Montreal Protocol provisions for implementing effective and operational national licensing systems to control ODS and ODS alternatives imports and exports and related annual trade data reporting. Inter-agency cooperation requires all vital national stakeholders to understand each other's roles in implementing import and export controls.



## National Ozone Units (NOU)

National Ozone Units are central national focal points coordinating the implementation of a country's national program to comply with all obligations under the Montreal Protocol. Although NOUs may have different names in different countries, they have the following common responsibilities:

- Adoption/implementation of legislation and regulation to control and monitor the imports and use of Montreal Protocol controlled substances
- Accurate and timely data collection and reporting of consumption of all Montreal Protocol controlled substances
- Efficient coordination between national agencies/stakeholders/industry to support the objectives of the Montreal Protocol
- Supervision of timely implementation of HCFC phase out/HFC phase down activities and the resulting reduction in consumption of controlled substances
- Promoting awareness raising and information exchange on relevant issues of the Montreal Protocol
- Regional cooperation and participation in Montreal Protocol meetings
- Integration of MLF gender policy in implementation of the Montreal Protocol

## The licensing agency

The licensing agency can be the NOU or other designated authority depending on the legislative framework in the country. For example, in Nepal, the licensing authority for importing HCFCs is the Department of Commerce, Supply and Consumer Protection (DoCSCP) under the Ministry of Industry, Commerce and Supplies (MoICS). MoICS issues a license to import the substance under the procedure, conditions, specifications, quantitative norms, and phase-out rate set forth by the Ministry of Forests and Environment (MoFE). Similarly, in the Republic of Korea, the Minister of Trade, Industry and Energy (MoTIE) grants permission to import specific substances.

In other instances, two or three different agencies may be responsible for licensing controlled substances under the Montreal Protocol depending on the application. For example, the Department of Industrial Works of Thailand regulates licensing system for ODS/HFC, which are used for industrial application, while the licensing system of methyl bromide, which is used for agricultural-related purposes is regulated by the Department of Agriculture of Thailand. On October 8, 2021, several departments of China's central government, namely the Ministry of Ecology and Environment, the Ministry of Commerce and the General Administration of Customs jointly released the updated list of ozone-depleting substances controlled in China, which added HFCs to the list of controlled substances to implement the Montreal Protocol and its amendments.

## Customs Authority

As a frontliner for trade control, the Customs play an essential role in implementing countries' licensing systems as they control and monitor the import and export of controlled substances at cargo entry points by enforcing the regulations on the import and export of ODS/HFCs. The NOU who is well-versed in Montreal Protocol issues should work closely with the Customs Authority (and licensing agency) to define clear roles and responsibilities and to enhance their understanding of each other's roles in implementing import and export controls. Close cooperation is essential to establish a successful control regime at the checkpoint thus helping controlling legal imports and preventing illegal imports of ODS. Moreover, NOUs use Customs records to monitor actual ODS/HFC imports and crosscheck information reported by importers to report annual import/export data. The Customs also play a vital role on monitoring and reporting imports and exports of ODS/HFC to prevent illegal trade and ensure compliance with the Montreal Protocol obligations.

As a result, Customs control strategies and monitoring systems are critical to the successful implementation of the Montreal Protocol. A well-designed customs control system makes the enforcement of licensing system and monitoring of ODS/HFC consumption more efficient.



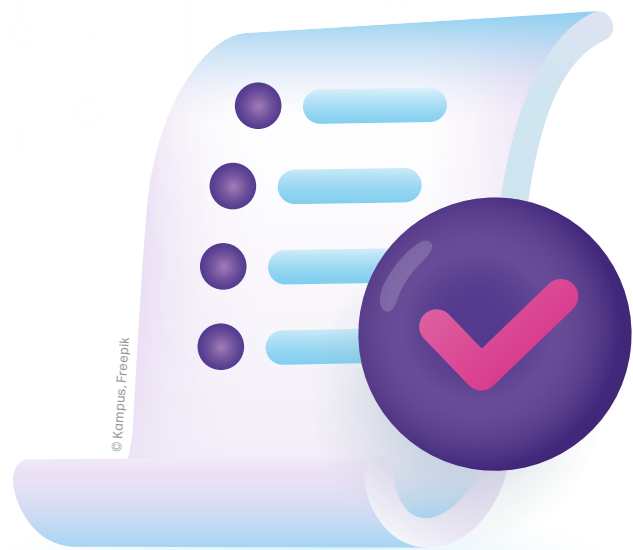
# 3

## Review of the options of digital solutions to ODS/HFC import/export licensing system

### 3.1 Standalone electronic ODS/HFC licensing systems

A standalone electronic ODS/HFC licensing system is designed to provide online access to licensing information, enabling the application, renewal and amendment of licenses/permits, status verification, and online payments. A standalone electronic licensing system for ODS/HFCs typically includes the following functions:

1. Apply for, amend, and renew licenses/permits
2. Pay license/permit fees online (some countries)
3. Track the status of the application
4. Submit and update distribution reports of ODSs/HFCs
5. View and download documents online



Although a standalone electronic licensing system issues digital licenses/permits, Customs authorities may still require importers/exporters to present paper copies of ODS/HFC licenses/permits during customs declaration. The administrative process for ODS/HFC licensing involves stakeholders such as importers, NOUs, licensing authority and Customs administration.

Although standalone electronic licensing solutions offer compelling functionality, the standalone electronic licensing system links between the importers/

exporters, NOU and licensing authority for very specific purpose on application of licenses/permit. If it is not integrated in/interfaced with the National Single Window (NSW) or Custom Automation Management (CAM), there is need to share resources and information with the Customs Authority manually.

It is important to note that standalone electronic system can be linked either to national single window or custom automation management system, referring to section 3.2 and 3.3 in details.



## 3.2 Electronic ODS/HFC licensing system as part of the National Single Window system

A National Single Window (NSW) system is a secure online system that covers all the operations that take place between government agencies and the business community in relation to the trade regulation formalities of each country. “Single Window” (SW) is defined as an electronic facility providing trade facilitation services that allow parties involved in trade and transport to lodge standardized information and documents with a single-entry point to fulfil all import, export, and transit-related regulatory requirements<sup>2</sup>. Individual data elements need to be submitted electronically only once. The facility is generally based on electronic data transmission. It relies on system software to distribute the data submitted by the economic operators to the receiving participating government agencies per the system rules and user agreements.

The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)’s [recommendations 33, 35, and 36](https://unece.org/trade/unecefact/tf_recommendations) provide comprehensive discussions on Single Window<sup>3</sup>. Recommendation 33 on Single Window is a facility that allows parties involved in trade and

transport to lodge standardized information and documents with a single-entry point.

Participating authorities and agencies should coordinate their controls through the Single Window. It may provide facilities for paying relevant duties, taxes, and fees. In practical terms, it aims to expedite and simplify information flows between trader and government and to bring meaningful gains to all parties involved in cross-border trade. The Single Window is generally managed by a lead agency, usually Customs, enabling the appropriate governmental authorities to access relevant information<sup>4</sup>.

The concept of the Single Window has also evolved – from the Customs automation era to trade information exchanges, limited Single Windows connecting traders with a single regulator (e.g., Customs, port, etc.), to NSW that allow all parties to submit standardized information only once to fulfil all regulatory requirements. Therefore, it is increasingly difficult to summarize the key features of Single Window. Figure 1 shows an example of NSW evolution in Thailand.

### Evolution towards a National Single Window in Thailand

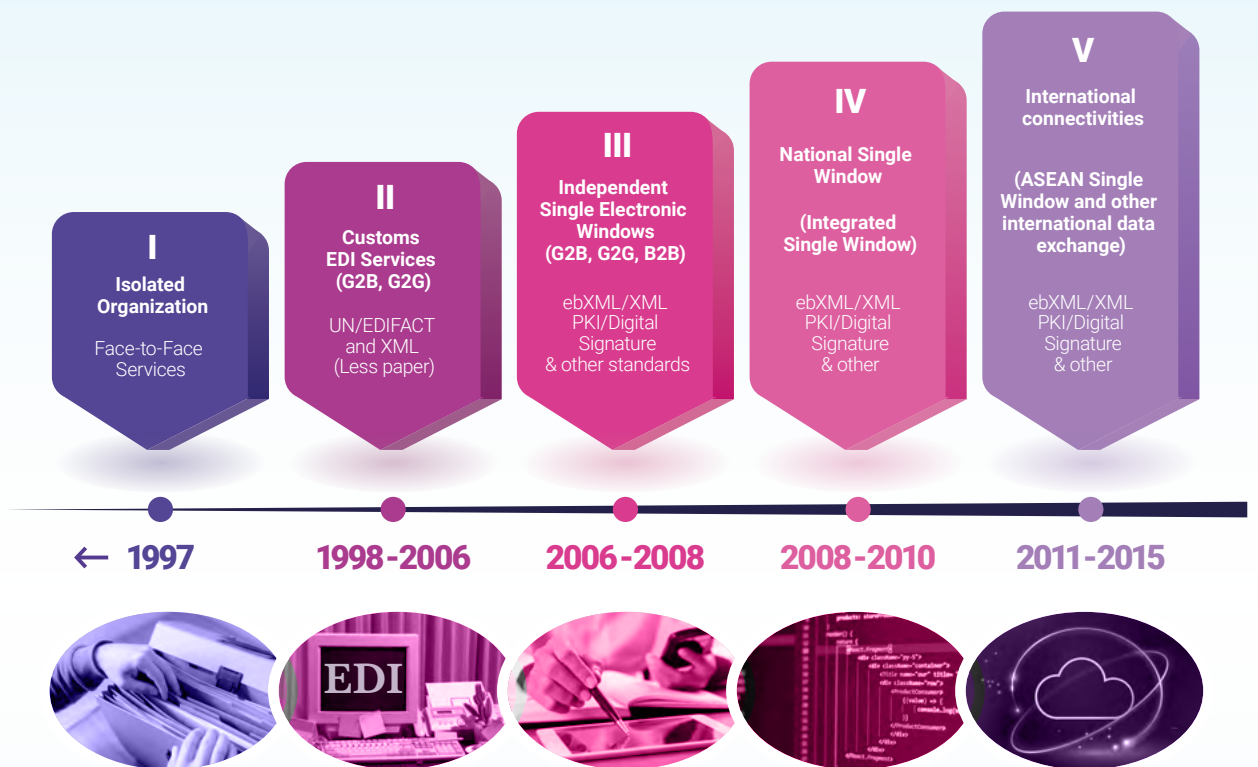


Figure 1. Evolution of NSW evolution in Thailand

Source: UNNExT Policy Brief 8

Implementing a Single Window requires many resources, continuous improvement, and multi-stakeholder engagement from the public and private sectors. Single Window environments are complex and usually require the participation and commitment of government agencies, along with the creation of formal hierarchical structures for coordinating, maintaining, and monitoring future progress (as shown in Figure 2). Building a Single Window environment would also require a responsible agency to handle the system’s coordination, maintenance, operation, and future developments.

<sup>2</sup> Under UNCEFACT Recommendation 33, a Single Window (SW) is defined as an electronic facility providing trade facilitation measures that allow parties involved in trade and transport to lodge standardized information and documents with a single-entry point to fulfil all import, export, and transit-related regulatory requirements.

<sup>3</sup> [https://unece.org/trade/unecefact/tf\\_recommendations](https://unece.org/trade/unecefact/tf_recommendations)

<sup>4</sup> <https://digitallibrary.un.org/record/548326?ln=en>

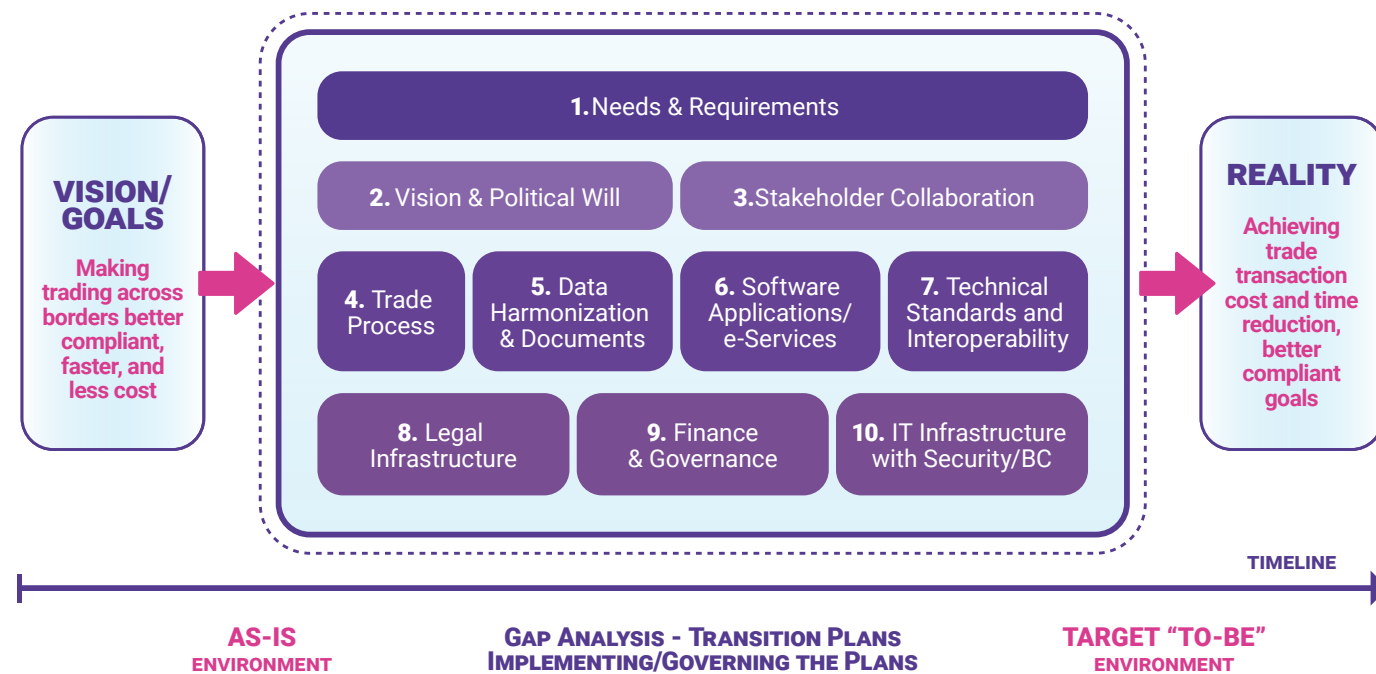




## 3.3 Electronic ODS/HFC licensing system as part of the Custom Automation Management (CAM) system

Figure 2. The complexity of developing National Single Window

Source: <https://www.unescap.org/resources/single-window-planning-and-implementation-guide>



The growing volume of international trade has increased the use and enhancement efforts of Customs Automated Management (CAM) systems. The primary role of CAM system is to automate processing related to the import/export and transit of goods. CAM system is an applied information and communication technology (ICT) system, which automates customs processes and services provided for trade, such as electronic submission and processing of customs declarations, customs clearance and other documents, control of the cargo manifest, pre-arrival processing and the release of the goods from Customs control, duty and tax accounting, statistical reporting, etc. CAM system is mainly operated by customs

authorities for accomplishing its mission. It can be composed of several subsystems or modules, each of which automates the different phases of a specific customs function.

In the absence of the NSW system, countries with paper-based licensing system have an option to first develop a standalone electronic system and then link it with the existing CAM system. Some countries may choose to maintain paper-based system due to their low trade volume, noting that digital solution could streamline the procedures and be developed when the time is right.

Ideally, the electronic ODS/HFC licensing system should be part of the NSW system so that the data and information can be shared among government agencies and ministries connected to the Single Window. Several countries in the region, such as Indonesia, the Republic of Korea and Singapore, have built ODS/HFC licensing systems in NSW systems.

### Integration and interfacing

Integration and interfacing are technological features widely deployed by a software industry for the transition of information or data from one system to another. It is important to note that the two terms cannot be used interchangeably. While interfacing bridges together and exchanges data from different systems that operate independently, integration connects all data and operates into a single source solution. Easier to implement, interfacing enables a faster process of operation while maintaining the flexibility of each system operator. Since integration seamlessly connects multiple systems at a fundamental level in a single platform, the solution can be highly complex.



## 3.4 Case study

# Vanuatu's integration of ODS/HFC module into the national single window system

The Ozone Layer Protection (OLP) Act No. 27 of 2010 enforced by the Department of Environmental Protection and Conservation (DEPC), was the first piece of legislation in Vanuatu to regulate the import and export of ozone depleting substances, including hydrochlorofluorocarbons (HCFC) through the licensing and quota system.

Following ratification to the Kigali Amendment, the new OLP Act No 22. of 2019 followed by the OLP Regulations No.20 of 2020 were gazetted to regulate HFCs in the import and export licensing and quota system. The new Act and Regulations also changed the licensing modality from an annual basis to a per-shipment basis to effectively track the actual trading of these controlled substances. According to the new Act, the DEPC, that houses the NOU, is mandated to issue licensing for the import and export of HCFCs and HFCs.

At the national level, the system is known as Vanuatu Electronic Single Window System (VeSW), powered by the ASYCUDA World. With support provided by UNCTAD, a module named "Ozone Depleting Substance (ODS)" was developed and integrated into the VeSW in accordance with DEPC legislative requirements and the Vanuatu Single Window framework.

The ODS module, which was launched since 1 December 2021, covers both HCFC/HFCs /HCs in bulk and HCFC/HFC/HC based equipment. The indicative steps/procedures and the operational skeleton of ODS module in VeSW is illustrated in the flowchart below.

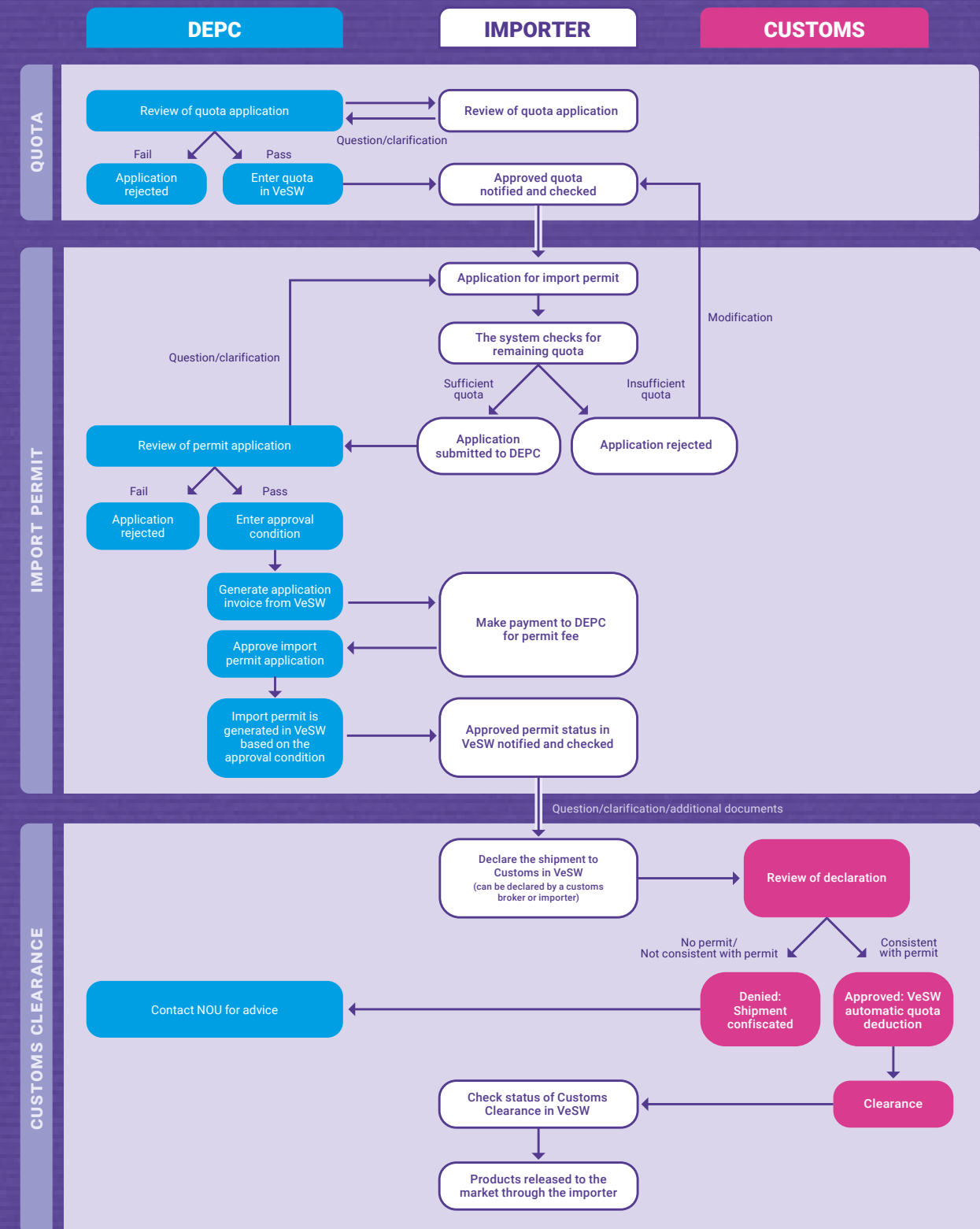


Figure 3. Vanuatu's integration of licensing system into national single window

Source: UNEP (<https://wedocs.unep.org/handle/20.500.11822/42994>)

### REMARKS

- **QUOTA:** NOU uploads approved quota in the VESW.
- **IMPORT PERMIT:** Import permit is generated from VeSW, preventing counterfeited or fake license. VeSW notifies importers/customs agents that declared the imported amount larger than the remaining quota and blocked by the VeSW.
- **CUSTOM CLEARANCE:** Customs officers can retrieve all information from VeSW, including supporting document and remaining import balance to verify the shipment. Importers/customs brokers must link declaration with the approved import permit. Declared information e.g. product code, HS code and quantity must be consistent with the approved permit. Remaining quota is calculated automatically in VeSW based on the import permit issued to importer.

### NOTES

- Importers and customs brokers are able to log in the system using their log in credentials to view the status of applications throughout the quota, permit and customs clearance process.
- Each user depending on their roles will be assigned different access points in the VeSW.

# 4

## Way forward for the National Ozone Unit

### 4.1 Challenges

#### *a) Policies and regulations*

From a policy perspective, several Asia Pacific countries still lack domestic legislation or have inconsistent legal frameworks for electronic transactions. It is noteworthy that many countries participate in technical assistance programs conducted at the country level and implement efforts to modernize and harmonize national legislation. These programs are in different stages of implementation.

#### *b) Technical information technology (IT)*

Some countries struggle with technical difficulties because of inadequate infrastructures, such as limited internet access and inadequate power supply. However, the biggest challenge is IT maturity. Many agencies involved in the international trade process, except the Customs, are not equipped with adequate IT capacities to process transactions electronically.

#### *c) Human resources*

The lack of national training programs and limited capacity-building activities were identified as one of the main challenges spanning various stakeholders (government officials, trading companies, and IT developers, database experts) involved in the ODS/HFC licensing process. In order to accelerate the adoption of IT for ODS/HFC licensing application/issuance processes, including the control over the equipment containing ODS/HFC substances, tailored assistance programs and country-specific support should be made available to the developing and small island states.

#### *d) Financial resources*

Most of the NOUs in countries without established electronic systems for ODS/HFC licensing reported that they need financial assistance to design and implement electronic licensing systems for ODS/HFC import and export control. Due to limited resources, these countries may also require technical assistance and training in adopting electronic licensing.

## 4.2 Recommendations

This Guidebook provides the following recommendations - corresponding to a few scenarios - to assist countries in Asia and the Pacific to speed up the digitization of ODS/HFC licensing systems and enable their interoperability with NSW system (as shown in Table 1).

SCENARIOS		RECOMMENDATIONS FOR NOU AND NSW OPERATOR	
Electronic ODS/HFC system is available.	NSW is available.	ODS/HFC licensing module is part of the NSW.	<p>Even if an ODS/HFC licensing system is fully integrated with a NSW, continuous improvement, and evolution of the NSW system in any country means that the component of ODS/HFC licensing system, as part of the NSW, may need to be updated regularly. One of the most interesting observations is that most economies are constantly reviewing and updating their respective Single Window systems. These are not merely updates but are highly expensive and completely revamped in order to leverage new technologies and techniques as well as prepare the respective economies for handling new modes of trade (e.g., e-commerce).</p> <p>Therefore, a challenge lies in that a Single Window is never a project that has an end stage but is a constantly evolving system. Thus, it is important that governance of a Single Window is not treated just as an IT project; it should be considered as a live mission and critical facility that has not only to be constantly maintained and supported, but also continually improved and enhanced. Only in this way, a Single Window can serve an economy and its trade community well and maintain itself as a world-class system for facilitating trade.</p>
		ODS/HFC licensing module is NOT part of NSW.	To explore the possibility to integrate the stand-alone system into NSW. This involves costs-benefits analysis, technical and legal readiness, institutional setting of Single Window and financial sustainability.
Electronic ODS/HFC system is available.	NSW is NOT available.	Country is planning to develop NSW.	Representative of NOU should be part of NSW committee to ensure that ODS/HFC will be eventually integrated into NSW system.
		Country has no plan to develop NSW.	In most countries in Asia, Single Window development if not led by NOU. When there is no plan to develop Single Window, NOU should identify the best solution to communicate with Customs, and any other border agencies, effectively.
ODS/HFC licensing is paper based.	NSW is NOT available.	ODS/HFC plans to develop stand-alone electronic system.	<p>Costs-benefits analysis should be carried out to decide whether to develop stand-alone electronic system or maintain paper-based system. Ultimately, it is important to note that digital solution is means to an end (to streamline the procedures). If neither the authority nor the users feel there is an urge to develop electronic system (e.g., if the volume is very low or traders just need to apply for license once or twice a year), it is better to wait until there is the right time to develop electronic system.</p>
		ODS/HFC keeps using paper-based operations	

Table 1. Various Scenarios and corresponding recommendations

Source: compiled by the authors

## Two lessons learnt from Single Window development in other countries are highlighted below:

### a) A phased advancement of a Single Window

A step-by-step phased implementation of Single Window, together with the application of the latest ICT technology, implementation of trade facilitation measures, and continuous effort of simplifying process and documentation, has proved to be effective.

The cases of Japan, the Republic of Korea and Singapore clearly show that the advancement of their national paperless trade systems have followed the general steps of setting a policy, planning, business process analysis and renovation, system development, out-sourcing of operation and maintenance, and the operation and expansion of services. This cycle has been repeated for the advancement of the system and services at either regular or irregular intervals.

The implication for NOU is that even if a country decides to integrate ODS/HFC e-licensing into the NSW system, it may not be necessary or possible to integrate ODS/HFC e-licensing into NSW at the very beginning. The NOU and Single Window committee must decide when it would be the most suitable time to integrate ODS/HFC e-licensing into the NSW system.

### b) Single Window as an environment rather than a system

Experiences of Single Window development in three economies China, the Republic of Korea, and Singapore show that no singular Single Window system helped them to attain world-class service levels for their traders. Instead, they have implemented a combination of trade-related platforms that serve various trade communities and modalities. This gives credence to the idea of perceiving a Single Window as an environment, where various trade-related systems can be inter-connected, rather than just one system.

The important implication is that there is no one-size-fits-all solution to integrate ODS/HFC e-licensing into the NSW system. A detailed feasibility study needs to be carried out to assess "as-is" and "to-be" scenarios.

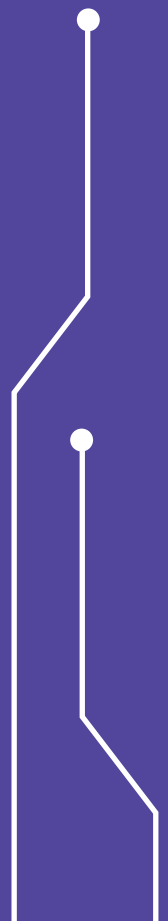
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 (+33) 1 44 37 14 50

 [unep-ozonaction@un.org](mailto:unep-ozonaction@un.org)