



Centre for Environment
Justice and Development



Monitoring Instances of Illegal ODS or HFC Trade In The East African Region

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1

Introduction

The world relies on the ozone layer to protect the Earth from harmful ultraviolet radiation. In the 1980s, global concern about ozone depletion led to the Montreal Protocol in 1987. This international agreement aims to phase out ozone-depleting substances (ODS) like chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs). Despite its success in reducing ozone depletion, illegal trade in ODS remains a challenge. The protocol's different phase-out schedules for developed and developing countries inadvertently created conditions for a black market in ODS. Initially involving CFCs, the trade continues today, where production and use of ODS still occur. The current global demand for illegal CFCs and –increasingly – HCFCs is not for manufacturing purposes, but rather for refrigeration and air conditioning servicing. The protocol has implemented licensing and training to combat smuggling, yet challenges persist in controlling this illicit trade. There is thus a need to identify challenges confronted by national authorities in controlling this illegal trade and promote the adoption of strong enforcement measures to combat it.

In that regard, this study was commissioned by the Centre for Environment Justice and Development (CEJAD), through its project

“Promoting Fast Action to Reduce Emissions of Fluorinated Greenhouse Gases (F-Gases) and Ozone Depleting Substances”. The overall objective of the project is to promote fast action to reduce F-Gas and ODS Emissions. CEJAD is a public interest Non-Governmental Organization based in Nairobi, Kenya, and an accredited observer to the United Nations Environment Assembly (UNGA) and the Montreal Protocol on Substances that Deplete the Ozone Layer.

This report covers several areas, namely, existing policy and legislative frameworks and institutional arrangements; existing trading platforms and how they support control of illegal trade; data management, including cases of data discrepancies; cases of illegal trade; enforcement actions, and more specifically, on prosecution; challenges and recommendations from East African countries sampled for the study. The countries covered in this study are Kenya, Rwanda, Uganda, Tanzania, and South Sudan. The basis of their selection was the diversity in experience with the Montreal Protocol, ease of communication with English being the common language, and established networks to allow for online engagements without travel due to the limited time available for this study.

1.1 Objective

The overall objective of the assignment is to monitor instances of illegal ODS or hydrofluorocarbon (HFC) trade in the East

African (EA) region, including outcomes of any prosecutions.

1.2 Scope of Work and Tasks

These were:

1. Assess the extent and nature of illegal ODS or HFC trade in the EA region.
 - a. Engagement with major F-gas distributors and other stakeholders, to assess their views on illegal trade, for example, how much of an issue it is, and how it is happening.
 - b. Assessment of illegal ODS and F-gases available via trading platforms and e-commerce websites.
2. Analysis of ODS and HFC trade coming into key ports in the region and identify discrepancies.
3. Identify cases of illegal trade and outcomes of any prosecutions made, and suspected cases of illegal ODS trade.
4. Gather relevant enforcement contacts and identify challenges confronted by national authorities in the region in combating illegal trade.
5. Prepare a detailed report of the findings that includes outcomes of any prosecutions, relevant enforcement contacts gathered, challenges confronted by national authorities identified, and recommendations to address the illegal trade.
6. Incorporate relevant comments and recommendations into the final report.

1.3 Methodology for Survey

In carrying out this assignment, the surveyor employed the following methods:

7.0.1 Desk Study

The desk study reviewed various policies, legal documents, and reports obtained from the following sources: National Ozone Units (NOUs), various regulatory agencies that control trade in ODS and F gases from the countries under the study, and the Ozone Secretariat. The documents obtained from NOU and environmental authorities regulating consumption of ODS and F gases that were reviewed included a database on ODS and F gases, some data from customs on imports of ODS and F gases, reports on illegal trade,

and enforcement actions taken against illegal traders.

Most of the policy and legal frameworks were obtained from the websites of the environmental authorities involved in the control of ODS and F gases. These were the National Environment Management Authority (NEMA) for both Kenya and Uganda, Rwanda Environmental Management Authority (REMA), Tanzania's National Environment Management Council (NEMC), and South Sudan's Ministry of Environment and Forestry.

7.0.2 Interviews

The consultant undertook online interviews with the NOUs and the respective environmental authorities controlling trade in ODS and F gases for Kenya, Rwanda, Uganda, Tanzania, and South Sudan. The Key informant guides were shared in advance to allow the respondents to acquaint themselves with the kind of information required. The interviews mainly sought to obtain information on the following issues:

- i. Existing policy and legislative frameworks and institutional arrangements

- ii. Existing trading platforms and how they support control of illegal trade
- iii. Data management, including cases of data discrepancies
- iv. Cases of illegal trade
- v. Enforcement actions and, more specifically on prosecution
- vi. Challenges and recommendations

The list of key informants has been annexed (Annex I) in the report

vi.0.1 Survey Limitations

The assignment required access to sensitive and confidential information from East African member states, particularly to:

1. Assess the extent and nature of illegal trade in ODS (Ozone Depleting Substances) and Hydrofluorocarbons (HFCs) within the East African region. This included:
 - a. Engaging with major F-gas distributors and other relevant stakeholders to gather insights on the prevalence and mechanisms of illegal trade;
 - b. Reviewing the availability of illegal ODS and F-gases through trading platforms and e-commerce websites; and

- c. Analyzing trade data for ODS and HFCs entering major regional ports, to identify inconsistencies or anomalies.

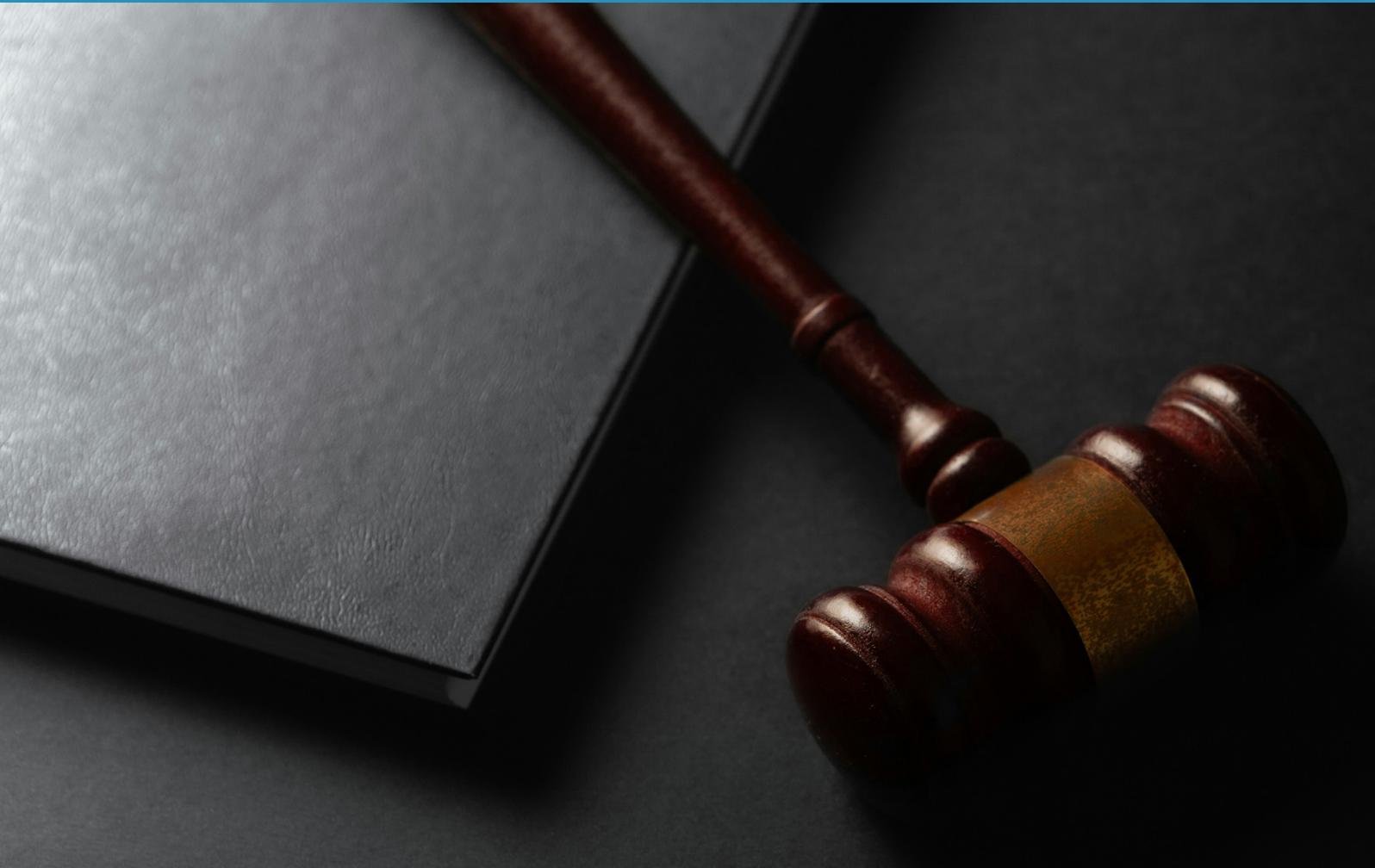
However, access to this information was limited due to the methodology applied in the study. The assignment design was constrained to virtual interviews and desktop research. As a result, several challenges were encountered:

- Key stakeholders, such as F-gas traders and platform operators, were either unavailable or unwilling to provide information due to the confidential nature of their business operations.
- Key informants interviewed were generally unable to share detailed insights on illegal trade activities except for NOUs and NEMA-Kenya.

- The remote nature of engagement limited the depth of information gathered, especially where trust and confidentiality were critical to disclosure.

Recommendation: To mitigate these limitations in future assignments, it is

recommended to incorporate in-person engagements with key informants. Face-to-face interactions are likely to foster trust and facilitate access to more comprehensive and sensitive data.



2

Overview of Policy and Legislative Frameworks on Control of ODS and F Gases

The Montreal Protocol is the binding treaty that supports all the East African member countries in the control of ODS and F gases. All five East African member countries have specific legislation on control of ODS and F gases, which are defined by the obligations of the Montreal Protocol. Commonalities among them include:

- Ratification of all the Montreal Protocol amendments, including the Kigali Amendment on HFC phasedown

- Banned the consumption of CFCs in 2010, noting that they are all importers and not producers of the RAC gases
- Functional licensing system for HCFCs
- Ban on importation of HCFC-dependent equipment, including compressors.

This section provides a summary of the relevant policy and legislative frameworks that are relevant in controlling illegal trade in ODS and F Gases

2.1 Kenya

International Obligations

Under Kenya's Constitution, any treaty or convention ratified by Kenya forms part of the law of Kenya¹. Kenya is a Party to the Vienna Convention for the Protection of the Ozone Layer as well as the Montreal Protocol on

Substances that Deplete the Ozone Layer. Kenya has ratified all the amendments to the Montreal Protocol, namely the London, Copenhagen, Montreal, Beijing, and the Kigali Amendment on HFC phase-down.

National Policy and Laws

Kenya's overarching policy on environmental management is the **National Environment Policy, 2013**². The Policy provides a framework for an integrated approach to planning, environmental protection, and sustainable management of natural resources in the country. It proposes a broad range of measures and actions responding to key environmental issues and challenges. Whereas protection of the ozone layer is not expressly captured in the policy, there are sufficient general policy statements regarding environmental protection that capture all aspects of the environment, including protection of the ozone layer.

The **Constitution of Kenya 2010** is the country's supreme law. It outlines sustainable development as one of the key national principles of governance in Kenya. The Constitution guarantees every person in Kenya the right to a clean and healthy environment, which includes the right to have the environment protected for the benefit of present and future generations through legislative processes and other measures. The Constitution also outlines several obligations of the State with respect to the environment, including the duty to "eliminate processes and activities that are likely to endanger the environment³." The Constitution also puts

a duty on every person to "cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources." Whereas these provisions of the Constitution are stated in general terms, their broad interpretation implies a duty on the State and all persons in Kenya to ensure sound environmental management, which includes measures for the protection of the ozone layer.

The **Environmental Management and Co-ordination Act (EMCA)**, 1999, is Kenya's overarching law for sound management of all matters relating to the environment⁴. The Act establishes the National Environment Management Authority (NEMA) as the principal government agency for coordinating and supervising the implementation of all government policies relating to the environment. The Act provides for the protection of the Ozone Layer and authorizes the Cabinet Secretary (Minister) responsible for the environment to issue guidelines for the elimination of Ozone Depleting Substances (ODS) and the control of activities and practices likely to lead to the degradation of the Ozone Layer. In addition, the Act gives power to the Cabinet Secretary responsible for the environment, in consultation

1. Constitution of Kenya, 2010. Art. 2(6)

2. Sessional Paper No. 10 of the National Environment Policy, 2013

3. Constitution of Kenya, 2010

4. The Environmental Management and Co-ordination Act, 1999

with NEMA-Kenya and other relevant lead agencies, to make regulations to give effect to the provisions of the Act. This provision thus empowers the minister to make regulations to give effect to the above-cited provisions for the protection of the Ozone Layer.

Kenya domesticated the Montreal Protocol through the **Environmental Management and Coordination (Controlled Substances) Regulations of 2025**. The Regulations provide that production, importation, or exportation of RAC gases (CFCs, HCFCs, and HFCs) requires authorization through licensing⁵. The Regulations provide that production, importation, or exportation of RAC gases

requires authorization through licensing.⁶ In line with the obligations of the Montreal Protocol, Kenya has prohibited trade in banned substances, specifically CFCs, and allows trade in restricted substances, HCFCs and HFCs through the quota system.

The regulations have provisions for illegally traded substances, which can either lead to reshipment to the country of origin at the cost of the importer, or the importer to pay the cost of disposal of the substances to NEMA-Kenya and revocation of the license for a period of two years, and as such, the importer is unable to trade in RAC gases within that duration. The regulations stipulate requirements for data reporting by importers to NEMA-Kenya.

2.2 Rwanda

The law that controls importation, exportation, and production of ODS and F gases is **Ministerial Order No. 004/2021 of 12/02/2021**, Governing the Use of Substances that Deplete the Ozone Layer or May Cause Climate Change. Rwanda is a net importer, as there is no production within the country. Any import of any of these substances without the authorization of REMA constitutes an offence⁷. Any trader willing to import ODS and/or F gases must apply, meet the requirements of REMA, and shall be issued with an import license with a validity of three calendar years. Traders who are unable to ship in the authorized quantities at once can do a piece shipment upon clearance by customs to make an entry. Unlike in Kenya, where piece shipment requires an import permit, Rwanda does not require any. While this reduces the cost of doing business,

there are reduced controls on imports, making it more of an obligation to the Customs and not the environmental regulator.

Data reporting is done annually based on reporting requirements as outlined in the Ministerial Order, based on data obtained from customs. According to the provisions of the Ministerial Order, illegal trade herein entails not only failing to obtain authorization or using falsified documentation but also importation of phased-out (banned) substances.

Temporary suspension or revocation of authorization is applicable where: there is failure to comply with the terms and conditions of the authorization; illegal importation of controlled substances or equipment containing those substances; or when an authorization was issued based on false documents or fraud.

2.3 Tanzania

The **National Environment Policy (NEP) (1997)** recognizes that development is sustainable if it takes place within nature's tolerance limits, both in the short and in the long-term perspective. Tanzania's overarching environmental legislation is the Environmental Management Act (EMA) of 2004, which provides a framework for sustainable management of the environment and repeals all earlier laws and provisions that are inconsistent with it

on environmental matters. Climate change issues are mainstreamed in this Act.

Regulation of ODS and F gases in Tanzania is guided by the Environmental Management (Control of Ozone Depleting Substances and Hydrofluorocarbons-HFCs) Regulations, 2022. It is an offence to produce, import, export, trade, transit, or dispose of any controlled substance (ODS or HFCs) without the necessary approvals from the respective

5. Environmental Management and Coordination (Controlled Substances) Regulations of 2025

6. Environmental Management and Coordination (Controlled Substances) Regulations of 2007

7. Ministerial Order No 004/2021 of 12/02/2021 Governing the Use of Substances that Deplete the Ozone Layer or May Cause Climate Change

authorities⁸. Any importation or exportation of the controlled substances beyond the prohibition dates is illegal. Further, import or export of any of the controlled substances to a non-party to the Montreal Protocol is an offence. The Regulations specify the responsibilities of the Customs officer as namely: (a) to prevent illegal imports, export, and or transit of controlled substances and products; (b) to detect whether imported or exported products contain controlled substances, and (c) to identify mislabeling and false documentation of controlled substances and products and take necessary actions. These provisions provide clear responsibilities to the Chemicals Inspector and the Customs officer in combating illegal trade in controlled substances.

2.4 Uganda

Uganda has domesticated the Montreal Protocol through the **National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2020**. The regulations have specified prohibited substances, basically banned substances under the Montreal Protocol framework, including CFCs and methyl bromide, as well as restricted substances, mainly HCFCs and HFCs⁹. The regulations also restrict substances and products for essential use nominations and critical use exemptions, such as metered dose inhalers and methyl bromide, respectively, as provided for in the Protocol.

The restricted substances and products must obtain authorization from NEMA-Uganda prior to importation. Any trader willing to import the restricted substances must obtain a licence to import controlled/restricted substances and products issued by NEMA-Uganda. A certificate of export or re-export of a restricted substance or product (in a format shown in Schedule 8 of the Regulations) and a movement document as set out in Schedule 5 of the Regulations issued by NEMA-Uganda. The requirement for authorization to trade in essential use nominations and critical use exemptions was established to be a unique requirement in Uganda, unlike the other East African member countries, which do not regulate such substances, except in Kenya,

The Division of Environment of the Vice President's Office is the focal point for the implementation of the Montreal Protocol, under which a National Ozone Unit (NOU) has been established to coordinate activities at the operational level. The Government of the United Republic of Tanzania established the Environmental Management Act and issued Environmental Management Regulations, which, inter alia, control the imports and exports of ODS and ODS-containing products, including HCFCs. The licensing system has been established and operationalized to control the import, export, and consumption of HCFCs. The quota system has been operational since 2013.

where importation of methyl bromide for quarantine and pre-shipment uses (QPS) is controlled through licensing.

The import license has a validity of one year. The applicant can choose to import in one go or phased importation, as long as the total importation is done within one calendar year. If done in phases, each phase should have a separate application; and the total quota allocated for that year per trader must not be exceeded, whether he/she imports in one go or in phases.

Data reporting is required for importing, producing, selling, distributing, exporting, or re-exporting a restricted substance or product upon request by the Authority. However, anyone authorized to trade in the substances or the products must apply in writing to the Authority. The applicant is required to provide:

- a. a copy of the current authorisation;
- b. a report of compliance with the conditions of authorisation, specifying—
 - i. the nature of the restricted substance or product;
 - ii. record of sale and available stock of the restricted

8. The Environmental Management (Control of Ozone Depleting Substances and Hydrofluorocarbons-HFCs) Regulations, 2022

9. The National Environment (Management of Ozone Depleting Substances and Products) Regulations, 2020

10. The Republic of South Sudan ratified the Vienna Convention and the Montreal Protocol on 12 January 2012.

substance or product; and

- iii. proof of continuous training of personnel in handling restricted substances and products.
 - a. Record of safety equipment and measures, including the best available technology and best environmental management practices.
 - b. Proof of payment of the fees prescribed in Schedule 6 to these Regulations, and any other information that may be required by the Authority.

The regulations allow for suspension or revocation of authorization, where there is non-compliance with the Act, these Regulations, or conditions of authorization. Any trade in

prohibited or restricted substances or products without compliance with the law or such authorization may lead to seizure.

Such seized substances or products can either be returned to the country of origin at the cost of the importer, disposed of according to the manufacturer's instructions, forfeited to the state, or disposed of in accordance with the applicable law. Additionally, any importer involved in trading in prohibited or restricted substances or products is liable to a fine, imprisonment, or both. Furthermore, only fifteen (out of more than 30) entry and exit points/ports (customs clearance points) are listed in Schedule 9 of the Regulations, which persons importing or exporting restricted substances and products must use. It is illegal to use any other port not listed in the Regulations.

2.5 South Sudan

The Republic of South Sudan is a Party to the Vienna Convention for the Protection of the Ozone Layer as well as the Montreal Protocol on Substances that Deplete the Ozone Layer.¹⁰ South Sudan has also acceded to the London, Copenhagen, Montreal, and Beijing Amendments to the Montreal Protocol.

¹¹ Whereas the country has not yet acceded to or ratified the Kigali Amendment of 2016, the process of ratification has been initiated and is ongoing.

Prior to gaining independence and self-rule in 2011, the Republic of South Sudan was part of the Republic of Sudan and was governed by the laws and administrative structures of the latter. However, since 2011, the Government of South Sudan has made gradual steps to set up legislative and institutional structures to govern various sectors of the economy.

The **Interim Constitution of Southern Sudan, 2005**, gives mandate to the Ministry of Environment and Forestry to conserve and protect the Environment.¹² The Ministry's roles include, among others, ensuring national implementation of Multilateral Environmental Agreements (MEAs) to which South Sudan is a Party.

In 2016, South Sudan's National Legislative Assembly passed the country's first **National Environmental Policy, 2015 – 2025**.¹³ The Policy outlines a ten-year plan by the government to develop laws, regulations, and guidelines to ensure the protection, conservation, and sustainable use of the country's natural resources without compromising the tenets of inter-generational equity. The Policy has specific provisions relating to the protection of the Ozone Layer. It outlines the commitment of the Government of South Sudan to:

- i. Implement the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer.
- ii. Promote the use of ozone-friendly technologies.
- iii. Establish licensing systems for the import of ozone-depleting substances (ODS)
- iv. Develop national ozone-depleting substances regulations and
- v. Formulate and implement the HCFC phase-out management plan (HPMP).

11. South Sudan ratified the London, Copenhagen, Montreal and Beijing Amendments on 16 October 2012.

12. <https://mojca.gov.ss/wp-content/uploads/2023/03/Interim-Constitution-of-Southern-Sudan-2005.pdf>

13. <https://open.africa/dataset/national-environmental-policy/resource/04d131c0-4f29-4630-967e-4b410d39c9bb>

In addition, the Policy emphasizes the commitment by the government to carry out public education and awareness and capacity building for various stakeholders. These activities complement the policy commitments related to the protection of the Ozone Layer.

In 2016, the Government of South Sudan issued a **Ministerial Order** to control the importation of ODS in the country. The Order is intended to implement and enforce the provisions of the **Import and Export Act, 2012**, relating to ODS imports and exports.¹⁴

The Act classifies ODS under the Montreal Protocol (1987) and the Vienna Convention (1985) as restricted goods whose importation into South Sudan is prohibited.

However, where the Minister is satisfied that an applicant for a special licence meets the requirements for issue of that licence, the Minister may issue to the applicant a special import licence subject to such conditions as the Minister may determine. The 2016 Ministerial Order empowers the Ministry of Environment and Forestry, through the National Ozone Officer, to control the importation of all ODS. The order further requires the importers to seek clearance and approval from the Ministry of Environment and Forestry for any importation of ODS.

In 2020, the Government of South Sudan, with the support of the United Nations Environment Programme (UNEP), developed the **draft National Ozone Depleting Substances and Hydrofluorocarbons Regulations**. The purpose of the draft regulations is to provide for the management and control of Ozone Depleting Substances and Hydrofluorocarbons and products or equipment made with,

containing, or designed to use Ozone Depleting Substances or Hydrofluorocarbons. The Regulations seek to establish management and control measures for the production, packaging, import, export, transit, handling, labeling, advertising, trade, use, and disposal of ODS and HFCs and products or equipment made with, containing or designed to use ODS or HFCs. Some of the issues covered in the draft regulations include:

- Ban on CFCs
- Phase-out of HCFCs.
- Phase-down of HFCs in line with the Kigali Amendment to the Montreal Protocol.
- Procedures and requirements for certification and regulation of RAC service technicians.
- Certification and accreditation of RAC training institutions.
- Regulation of ODS handlers/enterprises (especially the macro and micro sectors).
- Control of importation of ODS and ODS alternatives, dependent equipment.

The South Sudan NOU is planning to update the draft National Ozone Depleting Substances and Hydrofluorocarbons Regulations to also include HFC alternatives. The proposed new title will be 'National Ozone Depleting Substances, Hydrofluorocarbons and Alternatives Regulations'. Once the draft regulations are completed, they will be taken to Cabinet for onward transmission to Parliament for enactment. Once enacted, the regulations will gain the force of law for implementation and enforcement.

14. <https://mojca.gov.ss/wp-content/uploads/2023/03/Imports-and-Export-Act-2012.pdf>



3

Licensing Platforms

Rwanda, Kenya, Uganda, and Tanzania have established web-based trading platforms that promote trade facilitation, accountability, and transparency at different levels in integration

with the environmental authorities of these countries. South Sudan has yet to put in place a similar system. These have been detailed below:

3.1 Kenya's Trade Facilitation Platform

The first web-based trading platform that Kenya developed was the Kenya Electronic Single Window System (KESWS), which was launched in 2014. It was a facility that allowed parties involved in trade and freight to lodge standardized information and documents with a single-entry point to fulfill all import, export, and transit-related regulatory requirements. It integrated electronic systems of public and private entities involved in receiving, processing, and approving documents relating to international trade transactions. The System was developed and hosted by the Kenya Trade Network Agency, a State corporation under the National Treasury has been operational since May 2014. The Agency is mandated to facilitate cross-border trade and establish, manage, and implement the System.

In 2020, the government enhanced the E-single window system, which is currently used, known as the Trade Facilitation Platform (TFP). The TFP is an improvement from the previous System that is aligned with changing technological advancements. As such, it has the potential to lower enhancement costs, provide ease of technical and user support, and utilize current technologies such as Artificial Intelligence and Blockchain.

The TFP has over 16,500 registered system users and close to over 800,000 transactions per year. It has 41 stakeholder organizations, including 36 Partner Government Agencies (PGAs) such as NEMA-Kenya. The regulator fully uses the TFP as its web-based platform as required by the World Customs Organization. The system is automated; therefore, applications to import or export the substances and, forthwith, the licensing or permitting, are done through the system. Some of the key benefits are enhanced efficiency, transparency, and risk monitoring. Through the TFP, risk profiling has been done, flagging specific ODS (banned ODS such as R12) as high-risk, medium-risk, such as HCFC, and low-risk, such as hydrocarbons (R290, R600a). Additionally, the TFP is interfaced with the integrated Customs Management System (iCMS), thus allowing efficiency, transparency, and monitoring of substances. The iCMS is able to manage clearance, release, inspection,

and duty collection. The System can undertake automatic comparison of documents and logistics flow.

The interface provides the customs officials with access to TFP, and any licenses or permits approved, put on hold, or rejected by NEMA-Kenya. This, to an extent, has reduced cases of illegal shipment, specifically imports that may not have been licensed, and the quantity of imported versus the licensed RAC gases. Any imports found at the port of entry are not cleared until the importer applies for an import license and acquires the due authorization granted by NEMA-Kenya. Notably, the experience of the regulator demonstrates the strengths of the web-based platform. Prior to the electronic system, Customs data had entries for consignment that, in certain cases, had no approvals by NEMA; however, through the TFP, Customs officials have been able to notify NEMA of any ODS, F gas, and alternatives that have licences or permits. The importer in such scenarios is left to incur demurrage charges (costs incurred due to delay in releasing the consignment) as regularization through licensing is being undertaken. This is noted to have reduced cases of illegal imports of ODS and F gases before NEMA authorization.

The Integrated Customs Management System (iCMS) is a facility of the Government of Kenya designed to support import and export processes, speed up transactions, and reduce the costs involved in international trade. The System is aimed at improving compliance with the legal requirements that govern international trade, facilitating greater cooperation in customs processing, transit and presentation, classification, and electronic communication and document printing. iCMS is hosted by the Kenya Revenue Authority (Customs Service Department). The System consolidates all the customs systems into a modern, robust, and more efficient system built using the latest technology while ensuring seamless interface with both internal and external systems whenever the need arises. This System is meant to align operations with international best practices and improve ease of doing business in line

with the government's agenda in Kenya and the East African Community (EAC) region.

The iCMS was built in line with World Trade Organization requirements on simplifying and harmonizing trade procedures. In that regard, the iCMS envisages simplification and optimization of all Customs processes. This included the development of a new system that incorporates all other subsystems, entailing a clearance system and newly defined functionalities. Some of the key benefits of the iCMS are the ability to exchange declaration information with other EAC member states, including Rwanda, Uganda, South Sudan, Burundi, and the Democratic Republic of Congo, that rely on the Mombasa port, and tracking of cargo movement by all countries using the Mombasa port. Thus, no diversion or disappearance of cargo should occur with iCMS in place.

However, one observable challenge is control of ODS and F gases in transit to landlocked countries such as Uganda and Rwanda. The regulations have provisions for consignment of ODS and F gases in transit, but it is currently not implementable as it does not specify the appropriate requirements. The TFP is currently provisioned for imports and exports only, and not for ODS and F gases in transit. Furthermore, in line with the Environmental Management and Coordination Act, 1999, such hazardous substances in transit should be cleared upon payment of a refundable fee as an environmental restoration fund. The regulations that should operationalize this provision and thereby support requirements of ODS and F gases in transit were gazetted in early 2025¹⁵.

3.2 Rwanda's Licensing Platform

Rwanda, as a small, landlocked country, relies heavily on cross-border trade. Driven by the need to enhance trade facilitation, Rwanda developed a customs-centric system known as the Rwanda Electronic Single Window (ReSW) System¹⁶. The aim was to enhance the efficiency of the Single Window by integrating these systems to enable direct information/data exchange to eliminate paper-based permits during clearance of goods. The targeted agencies are the Rwanda Development Board, Rwanda Standards Board, Rwanda Agriculture and Livestock Inspection Services, National Agriculture Export Board, Rwanda Agriculture Board – Veterinary Services, and the Ministry of Health Pharmaceutical Unit¹⁷. This basically integrated a few agencies, and REMA was not one of the targeted agencies. USAID further notes that through the ReSW, key systems are partly digitized and therefore have limited functionality, and there is a lack of standardization as well as persistent issues with Non-Tariff Barriers to Trade (NTBs).

REMA uses the Product Registration System (PRS) for licensing ODS and F gases. The import licenses are accessible to Customs officials and the Rwanda Inspectorate,

Competition and Consumer Protection Authority (RICA)¹⁸.

During the interview with the NOO, it was notable that the existing System used by REMA (which is yet to be integrated with ReSW) cannot detect or identify illegal trade except the Customs Management System based on the United Nations Conference on Trade and Development's (UNCTAD) ASYCUDA World Customs Management Platform. Identification of illegal trade, which runs either in the form of mis-declaration, fake labelling, concealment, fake recycled material, or transshipment fraud, may not easily be detected by the customs system, other than mis-declaration. In Rwanda, the customs facilitate clearance and release of ODS and F gases, with the main target of verifying quantities of entries made against the actual imported consignment of the gases. RICA is mandated to ensure that the production and importation of goods under its mandate meant for public use or consumption are conducted in accordance with standards and regulations, and to inspect for quality assurance. In most cases, they use identification protocols such as the ASHRAE number, UN number, and HS codes, and only use refrigerant identifiers when in doubt.

15. Environmental Management and Co-ordination (Deposit Bonds) (No. 2) Regulations, 2025

16. Alban Odhiambo, Richard Kamajugo and Jackie Zizane (2017) Taking Advantage of a Window of Opportunity: The Rwanda Electronic Single Window for Trade Efficiency

17. Ibid

18. Ibid

REMA is notified of any illegal shipment for appropriate enforcement action, which in most cases entails reshipment to the country of origin at the cost of the importer. A potential gap therefore exists in terms of existing institutional arrangements to oversee the reshipment process. Furthermore, Rwanda is a landlocked country, and the return is purely by road transport. In such cases, without proper tracking, diversion is highly possible. REMA does not undertake tracking of ODS and F gases in transit, as this is the mandate of Customs. REMA has no presence at the inland port and border points of Rwanda and therefore has no direct access to consignment manifests. It is important to acknowledge that REMA is the regulator of the consumption of ODS and F gases, while Customs' main mandate is revenue generation, clearance,

and release of cargo. The current arrangement points to a weakness in the enforcement approach.

The USAID is implementing a project dubbed "Feed the Future Rwanda Trade Facilitation Activity" to expand the scope and reach of the Single Window, thus broadening the number of government bodies that are connected; to increase the number of traders who use the portal and to support the digitization of advanced rulings by Rwandan Customs, simplified HS Code classifications for traders, and expansion of the online Customs Declaration Form among others¹⁹. The implementation period is from 2024 to 2028 at a cost of US \$4,998,607²⁰. This presents an opportunity for addressing some of these outstanding challenges.

3.3 Uganda's Single Window System

The Uganda Electronic Single Window System (UESWS), managed by the Customs Department of the Uganda Revenue Authority (URA), is an electronic system that interfaces with the Automated System for Customs Data (ASYCUDA). The ASYCUDA is a world computerized global customs management system which covers most foreign procedures, including data on substances and products controlled under the Montreal Protocol. All ministries and government agencies must integrate or update their clearing system with the new system to be able to access the single window. Both sources generate trade data that can be used for statistical analyses covering different subjects/aspects.

The NOU hosted at NEMA is also supposed to maintain a database as provided under Regulation 20 (1) and (2), and Regulation 30 (3) states that the database shall be accessible to URA and any other relevant lead agency authorized by the Authority (NEMA).

Tracking of consignment of ODS and F gases is done using the records captured in the databases managed by the Customs

Department/URA and NEMA. The URA tracks the movement of consignments (with tracking devices) destined to different locations and ensures that such consignments are not disposed of or offloaded within Uganda.

URA, NEMA, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Ministry of Trade, Industry and Cooperatives (MTIC), and Uganda National Bureau of Standards (UNBS) have the mandate to verify controlled substances and products by conducting physical checks and by electronic means (correspondence amongst the government regulating agencies). Identifiers are also used. In the past, NEMA provided identifiers to the Customs Department, UNBS, and the Uganda National Association for Refrigeration and Air Conditioning, and these entities may undertake verification exercises. According to the NOU, the data (information) derived during verification exercises is credible and reliable, as the persons involved have already received training in handling identifiers, among other means. There is, however, a need to procure more advanced identifiers that also capture information concerning HFCs.

19. <https://en.igihe.com/business/article/faster-border-crossing-for-goods-set-to-boost-rwanda-s-international-trade>

20. Ibid

3.4 South Sudan's Licensing Platform

The Republic of South Sudan currently lacks clear administrative procedures specifically applicable to the importation of and trade in ODS and ODS-containing equipment. Importers are required to be in possession of a valid trade permit and pay relevant taxes to the South Sudan Customs Services/National Revenue Authority (NRA). The most serious challenge in managing ODS in South Sudan is the lack of accurate importation data. The Customs Services do not use the Harmonized System (HS) of coding the commodities, even though they are aware of it and of the need to make use of it, especially with the

increasing international trade²¹. Currently, the ODS chemicals (as well as non-ODS coolants) are lumped together with other chemicals and the refrigeration and air-conditioning equipment, and all are classified as “electric and electronic equipment” (e.g., together with television sets, radios, mobile phones, and computers). This presents an obvious case of misdeclaration. As such, there is no Customs data on ODS but rather on electronics, and it is therefore not possible to tell what fraction of these are ODS gases or ODS-containing equipment.²²

3.5 Tanzania's Licensing Platform

Since 2014, a new web-based IT system called Tanzania Customs Integrated System (TANCIS) has been introduced by Tanzania Customs to progressively facilitate paperless Customs operations linking Customs with other government authorities and the private sector, as it has been integrated with the TESWS.

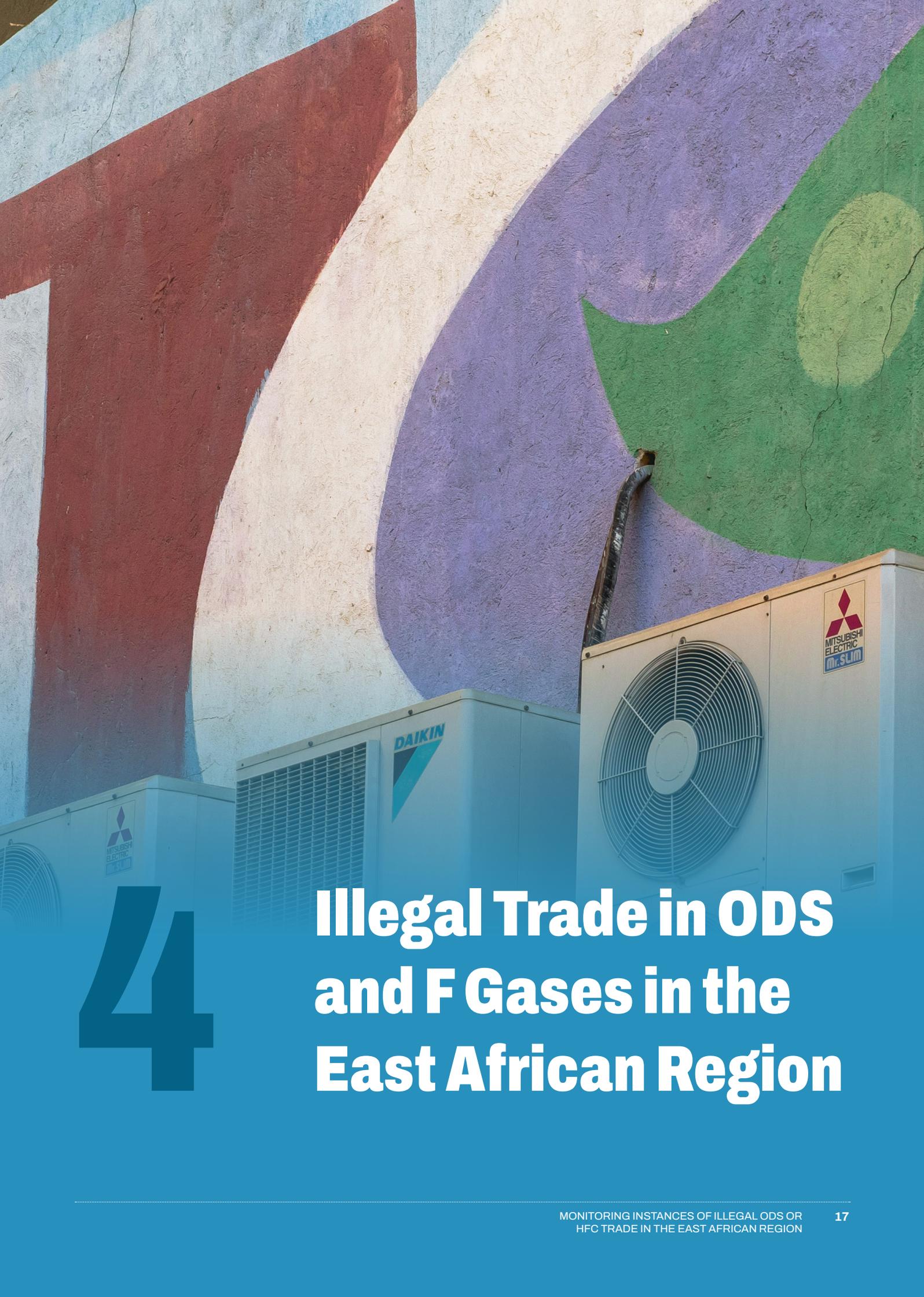
Tanzania's Electronic Single Window System (TESWS), like other countries' ESW, is a facility that allows parties involved in international trade and transport to lodge standardized information and documents at a single entry point to fulfill all import, export, and transit-related regulatory requirements. The system was piloted in 2020 and became operational in July 2024.

The TESWS' Custom declaration, Licence, Permit, Certificate, and others (LPCO), Payment, and Joint Inspection modules can be administered through the System. The System serves a single facility that allows application, processing, and approvals of the required licenses or permits, as well as inspections. The traders lodge only a single declaration to all government departments responsible for cargo clearance, thereby fast-tracking the clearance bureaucracy at both entry and exit points, such as ports, airports, and border points.

21. Opondo, G (2021), Report of Verification of South Sudan's HCFC Consumption for the Period 2016 – 2021

22. Ibid





4

Illegal Trade in ODS and F Gases in the East African Region

This chapter reviews the several players involved in controlling illegal trade within the five East African regions and provides discussions on case studies on illegal trade in HCFC and F gases in the region. The ability to

control potential illegal trade begins with the adequacy of the legal frameworks, the ability to implement, and the relevance of mandates, as well as the adequacy of institutions established for that particular purpose.

4.1 Institutions and Their Roles

This section highlights the institutional mandates in line with the institutional roles

in controlling illegal trade in ODS and F gases through compliance and enforcement.

i.1.1 Kenya

The Environmental Management and Coordination (Controlled Substances) Regulations, 2007 stipulate the various roles of government institutions in line with the

Montreal Protocol. Further, there have been administrative processes that have been put in place that outline the institutional arrangements to implement the regulations.

Role of NEMA in Compliance & Enforcement

- Process the licenses and permits with conditions in line with the provisions of the Regulations and Montreal Protocol.
- Undertakes physical verification at the port of entry or exit in liaison with Customs officials before clearance. The verification is undertaken to ensure that the prescribed conditions are adhered to by the trader and that the standards of the RAC gases are acceptable.
- Undertake analysis using the refrigerant identifier in cases where some information provided is unclear or sounds unreliable.
- Ensure disposal of any illegally shipped RAC gas in liaison with Customs. All disposals entail different approaches, including the use of a destruction facility and reshipment to the country of origin at the cost of the importer. The disposal approach deployed so far by NEMA is the reshipment order.
- Revocation of the import license of the trader and ban the trader from engaging in any import of the RAC gases for a period not less than two years.
- Awareness creation and training to enhance the capacity of the targeted stakeholders in RAC gas import and/or export.
- Facilitate data access from customs for reporting to the Ozone and Multilateral Fund Secretariats.
- Data reconciliation. Reconciliation is done for licenses processed annually, and data on imports and exports is obtained from the Customs department.
- Undertake inspections of premises holding RAC gases. This entails verification of documents and analysis of the refrigerants using a refrigerant identifier.

Role of Customs in Compliance & Enforcement

- Verification and authentication of Import documents, such as:
 - Import Declaration Form (IDF)
 - Import, Export, Transit, and Transshipment Entries
 - Cargo manifests
 - Invoices
 - Packing Lists
 - Material Data Safety Sheets (MSDS) for Chemical Goods
 - Any other document as may be required by verification officers
- Physical inspection of cargo. This involves consignments and confirming goods declarations and the actual goods. Physical inspection is not carried out for all, but only for selected cargo. This requires the establishment of risk indicators.
- Carrying out risk assessment on various cargoes for RAC gases for informed decisions.
- Collection and storage of import and export data. Data on all imported and exported RAC gases are recorded in

databases. Data is used for national planning and making informed decisions.

- Laboratory testing and analysis. Chemical goods are submitted to the Laboratory, and results are communicated to verification officers on the findings. The Laboratory also guides the Authority on technical aspects of classification requiring chemical analysis.
- Investigation of fraud and illegal trade. The Investigation and Enforcement Department investigates cases of

illegal trade and fraud of RAC gases and equipment containing the gases.

- Monitor importation of illegal substances such as banned Ozone Depleting Substances (ODS) through the Border Control Unit.
- Through the Regional Intelligence Liaison Office (RILO), undertake the dissemination of intelligence information regarding illegal importations, theft, and any other international crime to relevant customs authorities and other law enforcement agencies.

Challenges in Compliance & Enforcement

The government policy on Ease of Doing Business (EoDB) defined the categories of institutions according to their mandates at the entry points, more specifically, the Kilindini Port in Mombasa, which is the largest port in Kenya. Further, all ODS and F gases imports enter through the same port. As such, KRA/ Customs, Kenya Bureau of Standards (KEBS), and Port Health are at the front desk. The other institutions, such as NEMA, are at the back office and are only invited when deemed necessary, such as suspected cases of illegal shipment. The Customs officials have first access to any import or export documentation. There is generally expected goodwill from the Customs officials by the NEMA to share information on any shipment of the RAC gases to allow NEMA to diligently conduct the duty of investigation. However, sometimes this information is not shared in a timely manner due to internal administrative challenges within the Customs department.

- The key mandate of Customs is revenue collection and not enforcement of the Controlled Substances Regulations sometimes makes it difficult for customs officials to focus their energies on enforcement of the ODS regulations as opposed to revenue (tax) collection.
- Inadequate capacity of the enforcement agencies on the correct HS codes for the RAC gases.
- RAC gases contained in equipment such as compressors are usually classified under the applicable code of equipment rather than the code of the gases.
- Weak regulatory framework. For instance, weak penalties that do not deter offenders.
- Defective refrigerant identifiers that give erroneous and unreliable output, hence hampering the admissibility of evidence before courts of law.

Approaches towards addressing the Challenges

- Strengthened partnership between NEMA and the Customs Service Department. This has seen the appointment of a liaison officer from the Customs Service Department to coordinate any related engagements on control of ODS and F gases with NEMA.
- Sensitizations to enforcement agencies for behavioral change to ensure integrity. In 2022, through the support of GIZ, the government conducted the Trainer of Trainees (ToTs) workshop on control of ODS and ODS alternatives at the Kenya School of Revenue Administration. The institution is solely mandated to train KRA staff, and the training offered was to inform their curriculum. However, there

has not been a sustained follow-up to assess the impact of the ToTs and the trainees. It is not yet clear how many training or refresher trainings have been undertaken since 2022.

- Amendment of the Regulations to stiffen the penalties, and gazettelement of the refrigerant identifier to sustain prosecution.
- Established a framework for capacity development of Customs officials on control of RAC gases in Kenya.
- The use of the electronic window system, TFP, ensures risk profiling and real-time communication between officers involved.

- Procurement of blend analyzers and targeted regular training of the enforcement users.

i.1.2 Rwanda

Rwanda has three major players in the process of controlling illegal trade.

Role of REMA in Compliance & Enforcement

- Process the licenses with conditions in line with the provisions of the Regulations and Montreal Protocol. The validity of the license is 3 years.
- Undertake analysis using the refrigerant identifier in cases where some information provided is unclear or sounds unreliable.
- Ensure disposal of any illegally shipped RAC gas in liaison with Customs. All disposals entail different approaches, including the use of a destruction facility and reshipment to the country of origin at the cost of the importer. The disposal approach deployed so far by NEMA is the reshipment order.
- Revocation of the import license of the trader and ban the trader from engaging in any import of the RAC gases for a period not less than two years.
- Awareness creation and training to enhance the capacity of the targeted stakeholders in RAC gas import and/or export.
- Upon notification of suspected illegal import, undertake physical verification in liaison with RICA.
- Facilitate data access from customs for reporting to the Ozone and Multilateral Fund Secretariats.
- Data reconciliation at the NOU within REMA. Reconciliation is done for licenses processed annually, and data on imports and exports is obtained from the Customs department.

Role of Customs in Compliance & Enforcement

- Process entry requests by importers
- Verification and authentication of Import documents, such as:
 - Import Declaration Form (IDF)
 - Import, Transit, and Transshipment Entries
 - Cargo manifests
 - Invoices
 - Packing Lists
 - Material Data Safety Sheets (MSDS) for Chemical Goods
 - Any other document as may be required by verification officers
- Verification of cargo, specifically the quantities issued in the license versus actual quantities received at the port of entry.
- Carrying out risk assessment on various cargo for RAC gases for informed decisions.
- Collection and storage of import data. Data on all imported RAC gases are recorded in databases.
- Investigation of fraud and illegal trade. The Investigation and Enforcement Department investigates cases of illegal trade and fraud of RAC gases and equipment containing the gases.
- Monitor importation of illegal substances such as banned Ozone Depleting Substances (ODS) through the Border Control Unit.
- Through the Regional Intelligence Liaison Office (RILO), undertake the dissemination of intelligence information regarding illegal importations, theft, and any other international crime to relevant customs authorities and other law enforcement agencies.

Role of RICA in Compliance and Enforcement

- Undertake a physical inspection of cargo upon clearance by Customs
- Verification of imports of ODS and F gases for quality control
- Notification to REMA of suspected cases of illegal shipment

Challenges in Compliance and Enforcement

The engagement between the three agencies is purely on goodwill. The ability for REMA to know of any illegal undertaking by the traders is based on notification by the Customs of RICA. REMA does not have direct access to the manifests and any other documentation unless requested. Some of the common challenges in Kenya are:

- The key mandate of Customs being revenue collection and not enforcement of the Controlled Substances Regulations sometimes makes it difficult for customs officials to focus their energies on enforcement of the ODS regulations as opposed to revenue (tax) collection.
- Inadequate capacity of the enforcement agencies on the correct HS codes for the RAC gases.
- RAC gases contained in equipment such as compressors are usually classified under the applicable code of equipment rather than the code of the gases.
- Weak regulatory framework. For instance, weak penalties that do not deter offenders. Defective refrigerant identifiers give erroneous and unreliable output, hence hampering the admissibility of evidence before courts of law.

i.1.3 Uganda

Role of NEMA-Uganda in Compliance & Enforcement

- Process the licenses with conditions in line with the provisions of the Regulations and Montreal Protocol.
- Undertake analysis using the refrigerant identifier in cases where some information provided is unclear or sounds unreliable.
- Ensure disposal of any illegally shipped RAC gas in liaison with Customs. All disposals entail different approaches, including the use of a destruction facility and reshipment to the country of origin at the cost of the importer. The disposal approaches deployed so far by NEMA-Uganda are the reshipment order.
- Revocation of the import license of the trader and ban the trader from engaging in any import of the RAC gases for a period not less than two years.
- Awareness creation and training to enhance the capacity of the targeted stakeholders in RAC gas import and/or export.
- Facilitate data access from customs for reporting to the Ozone and Multilateral Fund Secretariats.
- Data reconciliation. Reconciliation is done for licenses processed annually, and data on imports is obtained from the Customs department.
- Undertake inspections of premises holding RAC gases. This entails verification of documents and analysis of the refrigerants using a refrigerant identifier.

Role of Customs in Compliance & Enforcement

- Verification and authentication of Import documents, such as:
 - Import Declaration Form (IDF)
 - Import, Export, Transit, and Transshipment Entries
 - Cargo manifests
 - Invoices
- Packing Lists
- Material Data Safety Sheets (MSDS) for Chemical Goods
- Any other document as may be required by verification officers
- Physical inspection of cargo. This involves consignments and confirming goods

declarations and the actual goods. Physical inspection is not carried out for all, but only for selected cargo. This requires the establishment of risk indicators.

- Carrying out risk assessment on various cargo for RAC gases for informed decisions.
- Collection and storage of import and export data. Data on all imported and exported RAC gases are recorded in databases. Data is used for national planning and making informed decisions.
- Laboratory testing and analysis. Chemical goods are submitted to the Laboratory, and results are communicated to verification officers on the findings. The Laboratory also guides the Authority

on technical aspects of classification requiring chemical analysis.

- Investigation of fraud and illegal trade. The Investigation and Enforcement Department investigates cases of illegal trade and fraud of RAC gases and equipment containing the gases.
- Monitor importation of illegal substances such as banned Ozone Depleting Substances (ODS) through the Border Control Unit.
- Through the Regional Intelligence Liaison Office (RILO), undertake the dissemination of intelligence information regarding illegal importations, theft, and any other international crime to relevant customs authorities and other law enforcement agencies.

Challenges in Compliance and Enforcement

Notification of any illegal shipment to NEMA-Uganda is largely dependent on goodwill. The ability for NEMA to know of any illegal undertaking by the traders is based on notification by the Customs. NEMA does not have direct access to the manifests and any other documentation unless upon request. Some of the common challenges with Kenya and Rwanda are:

- The key mandate of Customs being revenue collection and not enforcement of the Controlled Substances Regulations sometimes makes it difficult for customs officials to focus their energies on enforcement of the ODS regulations as opposed to revenue (tax) collection.

- Inadequate capacity of the enforcement agencies on the correct HS codes for the RAC gases.
- RAC gases contained in equipment such as compressors are usually classified under the applicable code of equipment rather than the code of the gases.
- Weak regulatory framework. For instance, weak penalties that do not deter offenders.
- Defective refrigerant identifiers give erroneous and unreliable output, hence hampering the admissibility of evidence before courts of law.

i.1.4 South Sudan

The mechanism for monitoring ODS in South Sudan is currently based on the Ministerial

Order of 2016, which mainly focuses on control of imports.

Role of Ministry and NOU in Compliance & Enforcement

The **Ministry of Environment and Forestry** is the Government's responsible body for the Montreal Protocol and its implementation in the Republic of South Sudan. South Sudan's **National Ozone Unit (NOU)** is anchored within the Ministry of Environment and Forestry. It is funded by the Multilateral Fund for the Implementation of the Montreal Protocol.

The NOU is mandated to carry out the coordination of the operational activities of the ODS phase-out. These include:

- i. Promotion of public awareness and capacity-building programs.
- ii. Data reporting according to Article 7 of the Montreal Protocol.
- iii. Preparation of proposals for projects/activities.
- iv. Formulation of policies and strategies, including ODS phase-out projects and activities; and
- v. Preparation and evaluation of action programs to assist the government in responding to the requirements of the Montreal Protocol.

The NOU functions under the **Directorate of Climate Change and Meteorology** within the Ministry of Environment and Forestry. The NOU is fully supported by the Directorate's Senior officials, both administratively and technically, consisting of the Ozone Officer, one technical officer, and one support staff. The operations of the unit are fully supported by the Ministry, including transport, office

space, and the involvement of some staff in the activities of the ozone unit.

The NOU operates under the directives, approval, and supervision of both the Ministry's **Undersecretary**, who is the accounting officer both financially and administratively, and the **Director General for Climate Change and Meteorology**, who is the technical officer. The **Directorate of the Administration and Finance** of the Ministry controls the project finances in a separate account in the name of the National Ozone Unit. The country is also in the process of establishing an Ozone Steering Committee to steer ozone-related activities nationally.

The NOU/Ministry of Environment and Forestry currently uses the Ministerial Order of 2016 to implement and enforce administrative controls on the importation, use, and handling of ODS in South Sudan. These controls are mainly administrative in nature. For example, if an importation of unauthorized or illegal ODS is detected, the sanction that may follow is an order to have the importer return the same to the country of origin at the trader's own cost.

According to the Ministerial Order of 2016, if unauthorized imports are detected at points of entry, the same is to be returned to the country of origin, and the importer should bear the costs of reshipment. However, there is a challenge in detecting suspicious shipments because the Customs Services and even the NOU do not have refrigerant gas analyzers. They only rely on random visual inspection, which may not be very effective²³.

Role of Customs and other State agencies in Compliance & Enforcement

The **South Sudan Customs Services** is responsible for the clearance of all imports into the country and exports, including those of ODS and ODS-containing equipment.

Other key state agencies involved in the ODS regulatory cycle include the **South Sudan Bureau of Standards** – responsible for product quality control and assurance, the **National Ministry of Trade and Industry** – responsible

for registration and licensing of importers and exporters (the NOU will be cooperating with the Ministry of Trade and Industry on licensing and quota system for ODS imports), and the **South Sudan National Police Service** – responsible for overall law enforcement in the country.

23. Ibid

Challenges in Compliance & Enforcement

- The Ministerial Order of 2016 has some shortcomings, e.g., in terms of scope, penalties, and these can only be cured by enacting comprehensive legislation on ODS, HFCs, and alternatives.
- The key mandate of South Sudan Customs Services is revenue collection and not enforcement of environmental requirements; hence, customs officials will usually focus their energies on revenue (tax) collection.
- No electronic single window system
- There are no HS codes assigned to ODS gases, hence it is not easy to monitor their importation.
- ODS gases are banded together in the same category with electronics. For this reason, it is not possible to obtain accurate Customs data on ODS imports.
- There is no formal licensing and registration system for the refrigeration and air-conditioning technicians, workshops, or trade; hence, the servicing sector is largely informal and unregulated. However, mainstream equipment suppliers (e.g., Samsung and LG) have some control over the quality of the service.
- Lack of refrigerant identifiers at the entry/ border points
- Delay in Kigali Amendment ratification • Manual Customs systems/ procedures.
- Lack of tools and equipment, and procedures for technicians and training centres

v.1.1 Tanzania

The Government of the United Republic of Tanzania has in place a licensing and quota system for imports/exports of HCFCs and HCFC-containing products, and for monitoring controlled substances under the Montreal Protocol that have been phased out. The system includes a mechanism to verify annually the capacity of each importer or supplier of HCFCs, the equipment and safety measures in place to manage refrigerants, refrigerant inventory, and invoice records, and the availability of qualified personnel. Every year, the National Ozone Unit (NOU), through the Director of Environment, publishes in the official Gazette and newspapers the ban on ODS already been phased out. Environmental inspectors are mandated to carry out inspection visits to ODS importers' warehouses and check the refrigerant cylinders to detect illegal trade of banned substances. Customs refresher courses also cover the banned ODS.

Mandate of TRA/Customs is as follows:

- National security through the protection of civil society through customs controls and security controls on international trade
- Environmental Protection by Sits on the Ozone Steering Committee –advises NOU on all matters of ODS & HFC trade and provides information on illegal trade.
- Collect revenue
- Facilitate trade and travel by simplification and harmonizing customs procedures for the conformity assessment mechanism and easy monitoring of international trade.
- Advise the Government on fiscal and economic matters based on Trade Statistics through analysis of tax and trade trends and policies.
- Regulate legal trade, detect and interdict illegal trade by ensuring that any goods entering or leaving their countries comply with national & international laws.
- Cooperating with other stakeholders involved in monitoring trade by supporting other enforcement agencies, e.g., in providing evidence for court cases.

4.2 Cases of Illegal Trade in ODS and F Gases

During the survey, most of the key informants engaged were not open to any cases of illegal trade. Data discrepancies were equally not common, and, in that regard, only Kenya shared past experiences of illegal trade. It was

interesting to note that consignment of F gases on transit was one of the cases that is an eye opener on the possibilities of undocumented cases of illegal trade through transit due to weak legislation and weak monitoring practices.

v.1.2 Rwanda

During the study, Rwanda did not provide clear information on cases of illegal trade in ODS

and F gases; however, there was a mention of one that was handled by a different team.

v.1.3 Kenya

Kenya experienced a few documented cases of illegal trade between 2010 to 2012; however, it does not imply that the illegal trade has not occurred in past years. Probably it may

occur without detection. During this period, the licensing system was manual and could easily be infiltrated with illegal practices.

Table 1: Summary of Cases on Illegal Trade in Kenya (between 2010-2024)

Date of seizure of consignment/ notification	Substances traded	Volume	Importing/ Exporting country	Details of the illegal ODS trade	Action taken
3 June 2010	R404A R410A	60 cylinders 144 cylinders	Kenya/ China	R404A tested 100% R134a R410A contained varying proportions of R12 (banned), R134a, R22 and HCs	Reshipment at the cost of the importing company and revocation of the ODS import license
2 May 2012	R404A R410A	30 Cylinders 27 Cylinders	Kenya/ UAE	Contaminated with R12	Reshipment at the cost of the importing company and revocation of the ODS import license
8 December 2012	R22 R134a R404A	30 Cylinders 30 Cylinders 40 Cylinders	Kenya/ UAE	R134a had banned R12 while R404A had 25% of the banned R12	Reshipment order and License application request were rejected

Date of seizure of consignment/ notification	Substances traded	Volume	Importing/ Exporting country	Details of the illegal ODS trade	Action taken
1 April 2014	R22 R134a R404A R407C R410A	9,534Kg 10,880Kg 4,360Kg 678Kg 3,390Kg	Kenya/ China	Expiry of permit and importing license	Refrigerant consignment stopped from clearance by customs until an updated, valid ODS permit and ODS license are obtained from the issuing authority
9 August 2021	R134a	5750 cylinders and 800 cylinders belonging to Uganda-based importers	Port of entry is Kilindini, Mombasa; Transit through Kenya, destination Hoima, Uganda	100% R134a, but the 2 importers failed to clear their consignment for unknown reasons	Test verification done, a no objection letter from NEMA to Kenya Revenue Authority (KRA) to auction All the 6550 cylinders auctioned and the revenue generated by KRA

An intended case of illegal shipment of ODS from China to Kenya: The Role of informal Prior Informed Consent (iPIC)

On 13 January 2023, NEMA received an informal Prior Informed Consent (iPIC) notification of a Kenya-based importer who had intended to ship 4,080 Kg of R22. Upon due diligence, it was established that the said importer had not acquired the necessary authorization. NEMA informed the office handling the matter in China, and it was not cleared for export. The importer eventually applied for an import permit for R22 of 2,500 Kg.

On 1 September 2023, another iPIC notification was sent to NEMA from China. The same importer had intended to ship 4,080 Kg of R22; however, the permit issued by NEMA based on the quantities requested by the importer was 2.500 Kg of R22. The consignment was

not cleared by China for export until the permit was regularized for R22 of 4,080 Kg.

This case clearly demonstrates the significant role of iPIC and the strength of collaborations among ozone officers across the globe (South-South, North-North, North-South)

A potential cause of data discrepancy is equally notable in this case. On 13 May 2024, NEMA received an iPIC notification from the same importer who had intended to import 3128.3 Kg of R134a against the authorized 9,000 Kg. The consignment was not cleared for export by China until the importer obtained the required authorization for the required quantity of R134a. HFC of 9000 kg, in cases where lower quantities are to be shipped in, the client should liaise with NEMA for permits to authorize the said quantity of 3128.3 kg

v.1.4 Uganda

There has not been actual illegal importation of refrigerants as such, but rather misinterpretation and certain (unintentional) anomalies in records captured by the Customs Department Asycuda system. Below are examples.

There was a case where URA prevented the movement of a consignment to South Sudan for which they had deemed illegal, since the

importer was not included in the list of registered importers in Uganda. When the NOU enquired further, it was discovered that the consignment of HCFC-22 (R-22) was in transit. Hence, it was an illegal importation into Uganda, and the truck with the consignment was allowed to proceed to South Sudan. This then did not affect Uganda's compliance status in terms

of the allocated R-22 total annual quota for that year.

There was a case of a data record with the Customs Department in which the amount of a certain refrigerant exceeded what was specified for that year. The NOU and Customs Department undertook a verification exercise,

and it was discovered that there was mis-recording – a different commodity captured under the HS Code belonging to a substance (CFC) controlled under the Montreal Protocol. Yet, there was no importation of CFCs into Uganda that year, as CFCs had already been banned by the government by that year.

v.1.5 South Sudan

The lack of proper customs data on ODS importation in South Sudan makes it difficult to establish cases of illegal importation of ODS. Whereas the Ministerial Order of 2016 states that in the event that unauthorized imports are detected at points of entry, the same is to be returned to the country of origin, and the importer should bear the costs of reshipment, there is so far no documented case. In addition,

the Customs Services and even the NOU do not have refrigerant gas analyzers; they only rely on random visual inspection, which may not be very effective in detecting illegal shipments. It is also important to note that declaration of RAC units and associated gases as electronic constitutes mis-declaration and they are not in line with the obligations under the Montreal Protocol.

v.1.6 Tanzania

There are so far no documented cases of illegal imports of controlled substances in the Tanzanian market.





5

Challenges

This section outlines challenges that were identified during the study that, if not addressed, can contribute to the illegal trade of ODS and

F gases. Most of the challenges were common among the countries that were investigated.

1. Legislative gaps on control of ODS and F gases

There are legislative gaps on ODS and F gases in transit. Noting that Kenya is a major transit country for RAC gases, a review of the regulations on controlled substances indicated that there is no clear provision on the regulation of RAC gases in transit. There is a requirement for a refundable 15% of freight cost, but there are structures in place for its implementation. Additionally, the regulator has no presence at the border points. Tanzania is another transit country for the RAC gases, but the regulations, while referring to the transport of such hazardous chemicals, do not make sufficient provisions for RAC gases transiting through the country. These weaknesses may

contribute to diversion and contribute to data discrepancies. On another front, there is no clarity on provisions for ODS and F gases that are on transit and end up being consumed within the country of entry upon auctioning (example of 6,550 cylinders of R134a that were destined for Uganda but were auctioned by KRA and consumed in Kenya). Further, non-gazettement of refrigerant identifier makes any scientific evidence inadmissible, and therefore, the prosecution's case cannot be sustained, yet it is the only equipment that provides a confirmatory report on the purity of the RAC gases.

2. Weak monitoring capacity of ODS and F gases

Monitoring is one of the obligations of the environmental authorities, customs, and other entities, such as RICA in Rwanda. It was picked as a glaring issue among the environmental authorities. These authorities solely rely on the goodwill of customs and any other agency involved in controlling illegal trade in ODS and F gases. As much as the control of illegal trade is done through a multi-agency approach, the environmental authorities must put in place proactive initiatives, such as random visits to the port for monitoring and requests for

key documentation. Furthermore, a major challenge is observed for ODS and F gases on transit to any of the landlocked countries or consignment ordered for reshipment by a landlocked country. There is either no presence or a weak presence of environmental regulators, especially for ODS and F gases consignment in transit. Resources were cited as a challenge, as staffing levels and financial needs cannot be sustained for full-time presence at the border points.

3. Low Usage of Refrigerant Identifier

Most of the enforcement agencies interviewed have either few or defective refrigerant identifiers. Currently, Kenya has no functional identifier. In such cases, while Customs may clear and release the consignment based on the licensing or permitting conditions, the confirmatory tests cannot be undertaken,

thereby providing a window for illegal trade. The usage by the regulators was also established to be very low. Some of the environmental authorities were also noted to have very little interaction with the identifier, with the expectation that Customs should be the frequent user.

4. Differing mandates

The key mandate of Customs being revenue collection and not enforcement of the regulations on ODS and F gases sometimes makes it difficult for customs officials to focus their resources on enforcement of the regulations as opposed to revenue (tax)

collection. Most of the revenue authorities tend to have very highly individualized targets for tax collection. This may compromise diligent scrutiny of imports.

5. Common Harmonized System (HS) Codes

In certain cases, where one HS code is allocated to more than one refrigerant gas, while in other instances, RAC gases contained in equipment such as compressors are classified under the applicable code of the equipment rather than the code of the gases. For instance.

- the HS code 2903.39 is applicable for R134a, R152, R152a, R125,143a etc among the pure HFCs
- HS code 3824.78 is applicable for these HFC mixtures namely R404A, R507A, R407A, R407B, R407C; R410A, R508A, R508B

6. Inadequate capacity

There are existing capacity gaps in the enforcement agencies regarding the correct HS codes for the RAC gases. There are several technological advancements in the RAC sector and certain skills that should be imparted to the agencies, for instance, handling of ODS, F gases, and hydrocarbons due to differing physical and chemical characteristics, as

most of these categories are shipped as a consignment. A case that was observed from the customs data indicated clearance of certain ODS without the requisite approvals from the environmental authorities. These justify the need for continuous and targeted capacity building.

7. Over-reliance on Electronic Single Window

An electronic single window system is critical in early detection, but ultimately, random verification is equally important. The frequency

of random verification has ultimately reduced with the development of well-enhanced electronic trading platforms.

8. Lack of Safe custody of seized ODS and F Gases

One of the reasons cited by the enforcement agencies was the lack of safe custody of confiscated ODS and F gases consignment should ultimately be disposed of once prosecution closes, specifically for

contaminated or mislabeled refrigerants, but all the East African countries have no disposal facilities. These challenges force the agencies to never consider prosecution as the first option.

9. Unwillingness by the majority of lead agencies to participate in prosecution cases

Most of the lead agencies that would appear as expert witnesses are hesitant to be part

of the prosecution due to the long and rather frustrating court processes.





6

Recommendations

Most of the recommendations are based on the challenges discussed above. These recommendations, if well implemented, should be able to address some of the outstanding challenges. While some can run concurrently, some may require a phased approach to realize the intended goal of no illegal trade in ODS and F gases.

1. **Policy and legislative reviews-** these should ensure gazettelement of refrigerant identifiers, well-defined roles of ODS and F gases regulators, especially at the entry/exit border points, monitoring and tracking of consignment on transit.
2. **Electronic Single Window System-** in itself a deterrence due to real-time monitoring, risk profiling, and should be developed or enhanced in specific countries such as Uganda and Rwanda, respectively.
3. **Capacity building-** targeted and continuous capacity building especially for Customs departments, inspectorate agencies such as RICA, including on maintenance skills for refrigerant identifiers, handling of various refrigerants (ODS, F gases, and hydrocarbons- they regularly consist of a consignment).
4. **Establishment of structures for safe custody-** for refrigerants, especially as flammable and toxic refrigerants availability and accessibility are enhanced in developing countries. In addition, the Meeting of Parties (MoP) should provide a clear framework for the disposal of RAC gases upon the finalization of the court case.
5. **The role of iPIC should be enhanced-** if well applied can easily deter illegal shipment and enable efficient and effective utilization of resources.
6. **The need for a common regional approach in the implementation of compliance and enforcement on matters related to trade in ODS and F gases.** Between 2009 and 2015, there was a functional regional network, East African Network for Compliance and Enforcement (EANECE), which had similar aspirations to the International Network for Environmental Compliance and Enforcement (INECE), which supported East African regional environmental compliance and enforcement activities. It was not sustained due to funding challenges. During its active lifetime, the East African region had common platforms to identify its common challenges and bring forth innovative solutions, strong networks to prevent, detect, and deter transboundary illegal/criminal activities.
7. **Equipping Enforcement Agencies with modern refrigerant identifiers-** to enhance random verifications and reduce over-reliance on the electronic single window system.
8. **Revision of the common tariff that provides the HS codes for products-** whereas it is appreciated that developing the nomenclature is highly complex, the World Customs Organization should be well briefed on the same and develop innovative approaches to reduce weak areas that may encourage illegal trade. Additionally, the MoP should identify additional identification criteria for RAC gases to reduce the applicability of common HS codes.
9. **South Sudan specifically requires a training needs assessment to establish specific areas for capacity strengthening-** the areas that this study has identified are, namely, technical support in the development and operationalization of the legislative framework on control of ODS and F gases, capacity building of NOU and Customs officials, among others. The government of South Sudan, through the South Sudan Revenue Authority (SSRA), has embarked on modernizing customs administration, a reform process that is expected to provide accurate and timely statistics on foreign trade and revenue. The change process is to promote faster clearance time as well as lower transaction costs. Automation of the customs system is expected to support the implementation of the EAC procedure manual to facilitate the Uniform application of customs processes to facilitate cross-border trade. Finally, the implementation of the EAC integration roadmap to domesticate the EAC legal framework will be important in addressing some of these challenges.



Annexes

Annex 1: Key Informant Interview Guide



Centre for Environment
Justice and Development

East African Regional Survey on Illegal Trade in ODS and F (HFC) gases- Key Informant Interview Guide

1.1 General Information

The Centre for Environmental Justice and Development (CEJAD) has commissioned a consultant to monitor instances of illegal ODS or HFC trade in the East African (EA) region, including outcomes of any prosecutions.

The objective of the survey is to promote fast action to reduce F-Gas and ODS Emissions within the East African Region (Kenya, Rwanda, Uganda, South Sudan, and Tanzania)

All the data collected through this assignment will be treated confidentially. The Consultant and the CEJAD will consolidate and analyze all the data obtained from the targeted sectors and regulatory institutions and develop a comprehensive report for the East African region on illegal ODS and HFC trade to support

decision-making related to the context of trade in ODS and HFCs.

Should you have any queries related to this KII, kindly contact either of the following:

- Ms. Selelah Okoth - Consultant, (cell phone +254 721 600 458 or via email at sellellah.okoth@gmail.com); or
- Mr. Gerphas Opondo- Consultant (cell phone +254 722 306 461 or via email at gerryopondio@yahoo.co.uk); or
- Mr. Griffins Ochieng' Executive Director, (cell phone +254 726 931 318 or via email at ogriffins@gmail.com)

We thank you in advance for taking the time to respond to this questionnaire!

1.2 Personal Information- Key Informants

Rwanda

Name of Organization: NOU-REMA
Name of Interviewee: Deborah Nibagwire; Martine Uwera
Position: NOO
Mobile no./Email: +250 788 835000.

Kenya

Name of Organization: NEMA- Kenya and NOU
Name of Interviewee: Oceanic Sakwa and Mr. Marindany Kirui
Position: Desk Officer/Montreal Protocol and NOO
Mobile no./Email: +254 720 318948/+254 722 847342.

Uganda

Name of Organization: NEMA Uganda
Name of Interviewee: Margaret Aanyu

Position: NOO
Mobile no./Email: +256 771 422125.

Tanzania

Name of Organization: Government Chemist
Name of Interviewee: Eliamini Mkenga
Position: Chemist
Mobile no./Email: +255 783 276066

South Sudan

Name of Organization: Ministry of Environment and Forestry/NOU
Name of Interviewee: Kapuki Tongun Lado
Position: NOO
Mobile no./Email: +211 917 190727

1.3 Guiding Questions for Key Informants

1. Policies and laws on ODS and HFCs?
2. Existing trading platforms- electronic? Semi-automated? Manual
3. How does the system work? Is it able to identify any illegal trade
4. Do you have specific government agencies you work with? What are their roles?
5. Working relationship with Customs? MoU? Notifications of any irregularity? Do national authorities have access and control at the port of entry?
6. What kind of documentation do you require when a trader makes an application for the import or export of ODS and HFCs?
7. What kind of approval/authorization do you issue? License/Certificate/Permit?
8. How long before approval/authorization?
9. Validity period upon approval/authorization?
10. Shipment- single or can be in phases? Any relevant requirements for piece shipment?
11. What are some of the commonly traded gases-R22, R134a, etc?
12. Are you implementing the quota system?
13. ODS and HFC data entering the main ports in the region- Kenya and Tanzania
14. Data management and reporting? Procedures in place for data collection, analysis, and reporting? Any data discrepancies so far experienced? (Please share data from REMA and from Customs on imports)
15. Is there any condition on illegal trade on the licenses/permits?
16. In the Approval/Authorization (License and permits)- any key information that supports control of ODS of HFCs that reduces illegal trade
17. What forms of control do you have for imports or exports entering or leaving the country?
18. Manifests/documents used, who has access? Who has control?
19. Any form of verification? Physical? Use of refrigerant identifier? Who uses it? How frequently? Data credibility/reliability?
20. How do you undertake tracking of any consignment of ODS or HFCs
21. (For landlocked countries), How do you engage with the country of entry and transit to avoid any diversion?
22. Share any cases of illegal imports- how was it detected? How did you respond?

23. Any prosecutions made? How was the matter handled? Outcome
24. Were there any challenges during the prosecution process?

25. What recommendations can you suggest to address the challenges?
26. Can you link us to any major ODS and/or HFCs distributors/suppliers/importers?

N/B: Smuggling methods: misdeclaration, fake labelling, concealment, fake recycled material, and transshipment fraud.

THANKYOU!!



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