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Illegal trade through online marketplaces and recent HFC investigations in the EU

UNEP Law Division, OzonAction side-event, MOP38, Kigali, 2 November 2026

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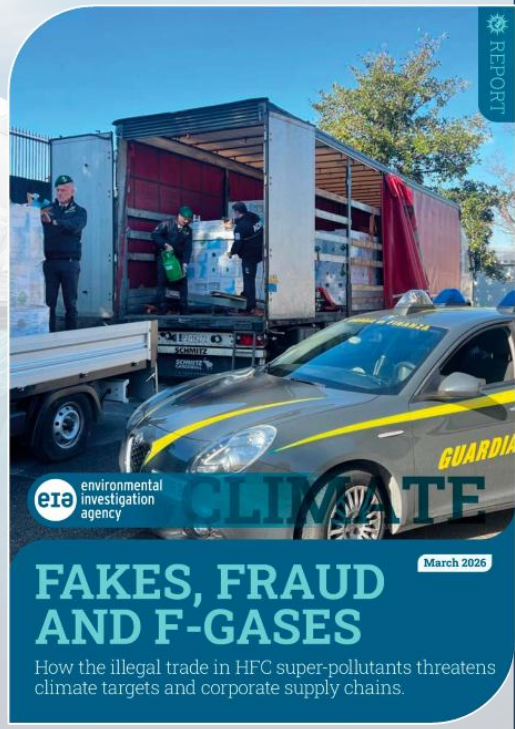

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INTRODUCTION TO EIA

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ecodes tiempo de actuar

LEGAMBIENTE

ZERO associação sistema terrestre sustentável

Deutsche Umwelthilfe

2°C

SFO°C Solutions for Our Climate

EEB European Environmental Bureau

CAN CLIMATE ACTION NETWORK Europe

Climate Advisers Network Berlin

iei international energy initiative brasil

GRADE

CEJAD

eia environmental investigation agency

ILLEGAL TRADE IN THE EU

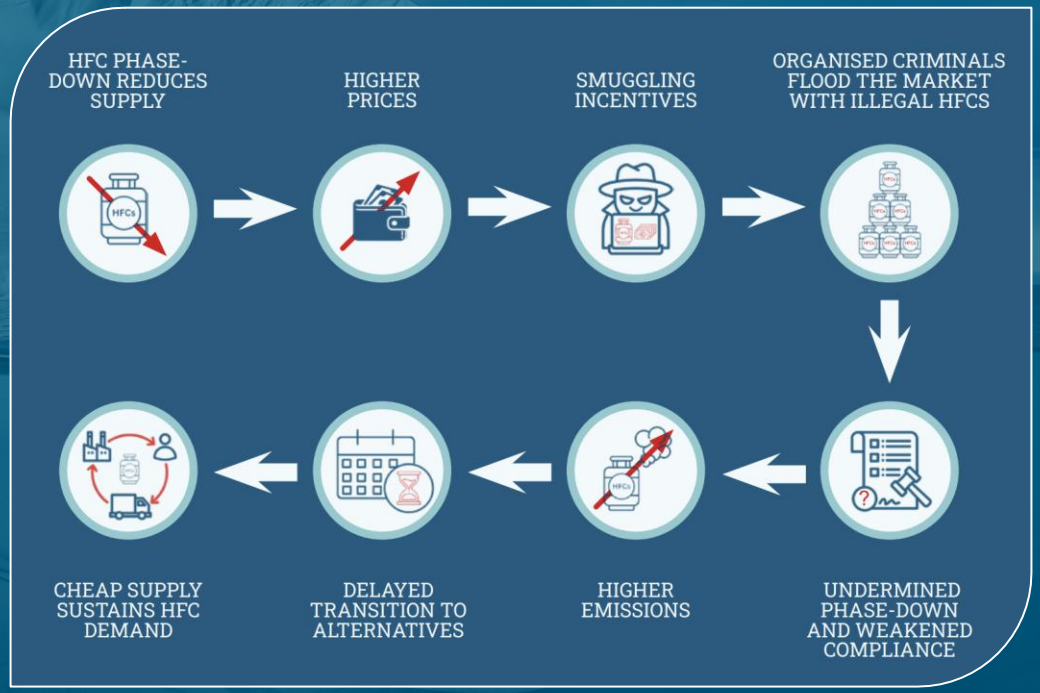
- Experience from the phase-out of ODS and Europe's ambitious HFC phase-out show that, without robust policy measures, transitions can give rise to large-scale illegal trade

- The revised EU F-Gas Regulation, adopted in 2024, introduced a suite of measures to tackle illegal trade, including:

  - **Real-time quota checks for customs**
  - **New requirements for cylinder take-back**
  - **Expanded bans on the use of HFCs**
  - **Additional equipment bans designed to reduce overall demand**

- In 2027, the supply of HFCs to the EU market will be cut to **13%** of the Kigali baseline – compared to **60%** of the baseline in other non-A5 countries.

Why illegal F-gas trade is a problem



EIA (2026) Fakes, Fraud and F-gases

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2025 F-gas Italian Investigations

"Cold gold"

EIA's 2025 F-gas Italian investigations uncovered organised crime networks engaging in tax evasion, misdeclaration, quota evasion and transit abuse.

- One company claimed to supply half of southern Italy's HFC market, despite holding no F-gas quota
- Another admitted to exceeded its quota and sourcing HFCs from outside the EU, often importing via Romania and Bulgaria
- Companies named major brands, Carrefour, Lidl, and EU manufacturers within their supply chain



Example quotes by companies investigated (recorded undercover):

"Of course, we operate between Naples, Forlì and everywhere else, and we make 15 million euros in five years."

"In two months, we'll have another 3,000 cylinders available, 5,000, 10,000 cylinders."

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NEW TRENDS

1. Abuse of servicing ban

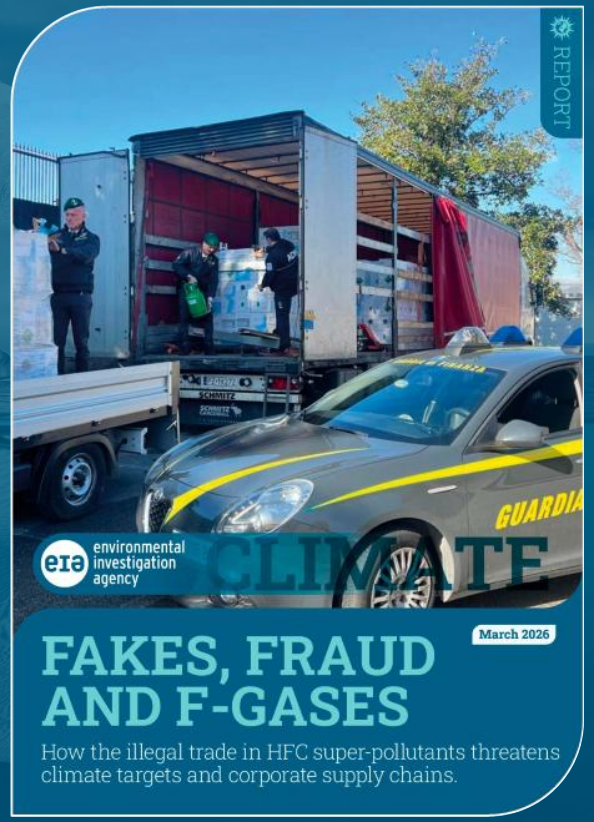
- From Jan 2025, servicing any refrigeration equipment with F-gases of 2500 GWP or more is banned — a de facto sales ban.

Reclaimed-gas exemption is being exploited:

- One company claimed to import ‘reclaimed’ R404A from Albania; others selling R404A rebranded as F-gas alternatives.

R404A sales are incorrectly invoiced:

- One company noted R404A is their most popular refrigerant; Another offered 200kg, then retracted offer. Both noted they would put ‘other materials’ on invoices.



NEW TRENDS

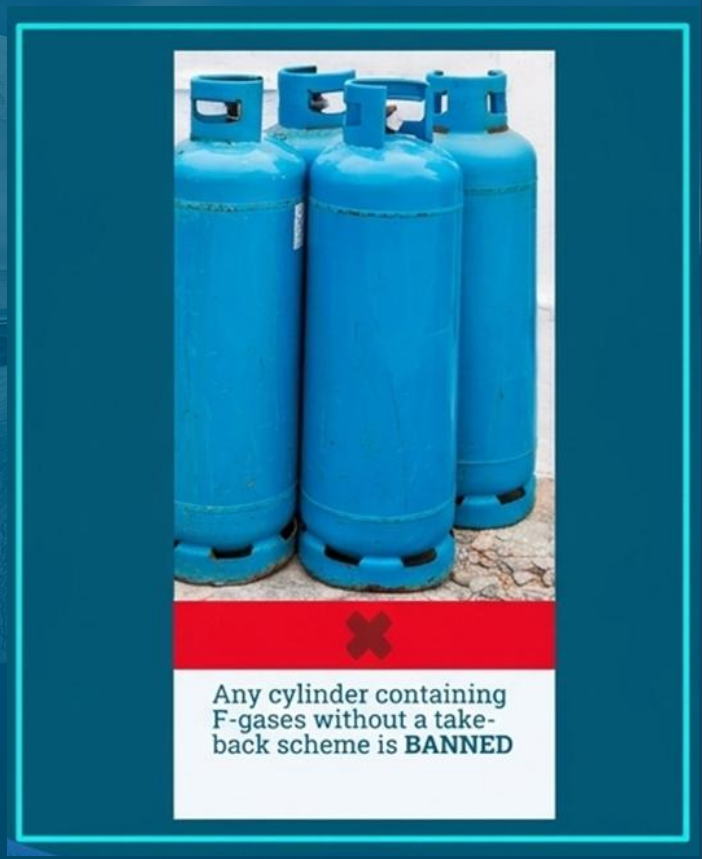
2. Cylinder take back schemes are not being implemented

Enforcement agencies are required to confiscate and dispose of non-refillable containers.

EIA investigations and analysis of online platforms suggests that most F-gas sellers are not offering cylinder takeback schemes.

ILT approach

- Smaller seizures: offending company is required to provide proof of destruction, with failure to cooperate resulting in administrative fines.
- Larger seizures are handled directly by the ILT, with higher penalties applied



NEW TRENDS

3. Counterfeiting

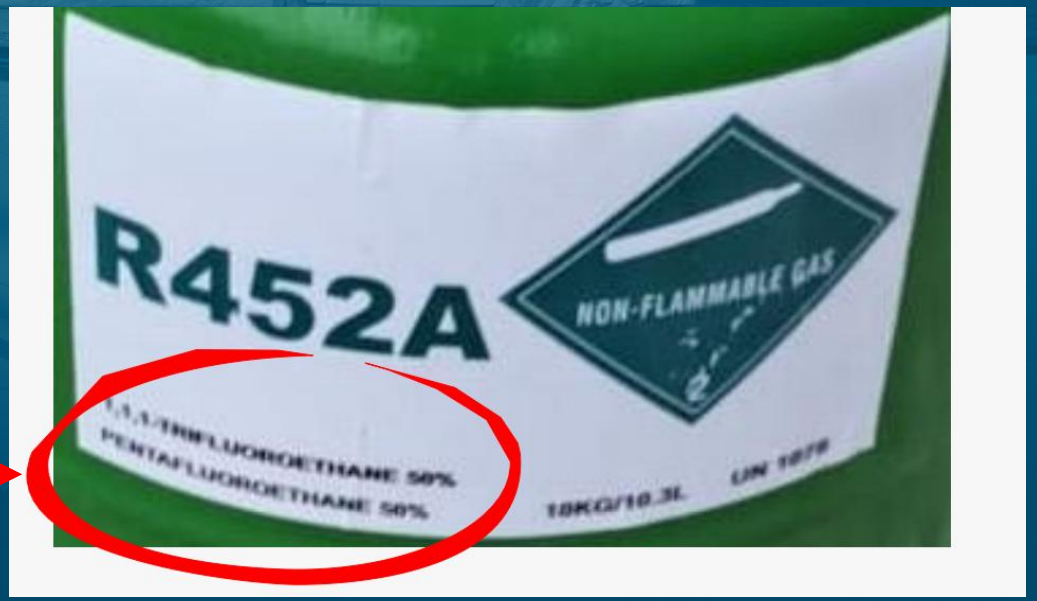
Industry stakeholders in Spain, Italy and Poland report "worrying increase" in banned refrigerants such as R404A or R507 being marketed under the false names of R449A or R448A at very low price.

Low price

- R452A is patented and costs €80/kg
- Illegal R452A is available at €20-50/kg

Labelling inaccuracies

Chemicals on label are noted as 50% R143a and 50% R125. This is R-507A not R452A.



Even if it does contain the correct blend-it may infringe IPR

NEW TRENDS

4. Online marketplaces

Online marketplaces will account for almost **60% of global e-commerce** sales by the end of 2027

EIA Polish Facebook marketplace analysis
(50 F-gas adverts, Jan 2026)

- **None** fully complied with the EU Digital Services Act trader information transparency requirements
- **None** openly offer a cylinder takeback scheme, as required under the F-Gas Regulation
- Prices well below industry standard



ONLINE MARKETPLACE WORK

- Ongoing assessment: scope & scale of illegal trade via online marketplaces in A5 countries
- **Assessment report** – desk-based study focused on:
  - Armenia
  - Brazil
  - Indonesia
  - Nigeria
  - Türkiye
- **Feasibility study AI-based web screening tools**
- **Practical guide for national authorities, customs and law enforcement authorities on best-practice approaches to monitor and regulate e-commerce platforms and supply chains**



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INTERIM KEY FINDINGS

Analysts recorded 151 unique adverts on six platforms so far between March-August 2026. Platforms vary between general online marketplaces (e.g. Alibaba), B2B wholesale marketplaces, social media marketplaces (e.g. Facebook marketplace), Classified advert platforms (e.g. OLX, Jiji) and specialist HVACR e-commerce retailers.

- **R-22 is widely offered (21% of 151 adverts)**
  - Leading refrigerant, or equal leading, on sale in Brazil, Indonesia and Nigeria
  - Also advertised in Türkiye, where imports are restricted to ministry authorised uses

  .
- **Disposable cylinders dominate** in all countries other than Türkiye
  - 100% of adverts in Brazil, Indonesia, Nigeria
  - 89% of adverts in Armenia
  - 33% of adverts in Türkiye (mostly on Alibaba);
  - No adverts offer cylinder return

R-22 prices are lower than HFC prices.

- Indonesia – R22 median price/kg is 26% below R-410A and R32
- Nigeria - R-22 median price/kg is 19% below R-410A and R32
- Absence of higher prices suggests R-22 supply is not yet constrained

Legal routes to remove listings exist, but refrigerant law is the gap.

- Türkiye combines confirmed refrigerant controls with a takedown route already used against refrigerant adverts.
- Indonesia's communications ministry can order removals within 24 hours, or 4 hours if urgent
- Since June 2025 Brazilian platforms can be liable for unlawful content they leave up once notified.
- Nigeria and Armenia depend mainly on platform cooperation..

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SUPPLY CHAIN TRANSPARENCY & TRACEABILITY

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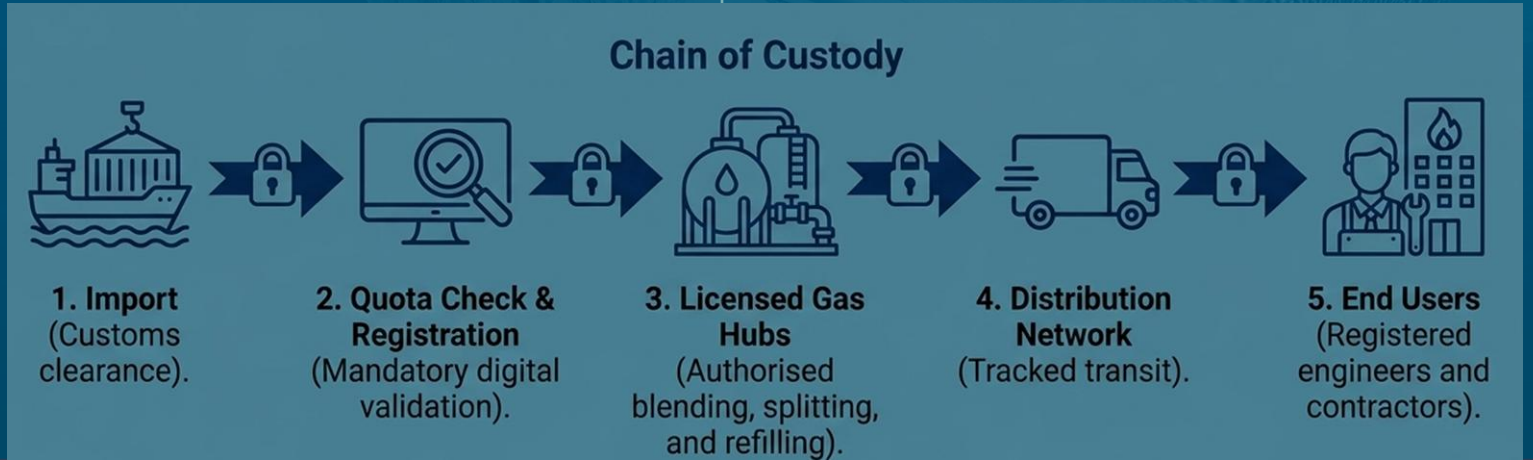
1. **Production and Manufacturing**
   - Tracking the origin of raw materials and production facilities

2. **Import/Export and Trade**
   - Monitoring cross-border movements, ensuring compliance with quotas, licenses and reporting requirements

3. **Distribution and Use**
   - Tracking the sale and transfer of gases through distributors, wholesalers, technicians, end-users

4. **Recycling, Reclamation and Disposal**
   - Documenting recovery, recycling or destruction of gases

5. **Regulatory Compliance and Reporting**
   - Maintaining records for audits and reporting to national authorities or international bodies.



FURTHER STRENGTHENING MONTREAL PROTOCOL INSTITUTIONS

- Agenda item 5 of MOP38
- Two CRPs under discussion, from the Africa Group of Nations (AGN) and from Australia, Canada, EU, Switzerland, Norway
- Both CRPs address licensing, capacity building



AGN CRP offers some practical steps to support Article 5 Parties to address illegal trade.

OP1: To request the Ozone Secretariat to prepare a report on the available tools that could be deployed to enhance tracking and monitoring of controlled substances across the supply chain, including in online marketplaces and on e-commerce platforms, for consideration at the forty-ninth meeting of the Open-ended Working Group of the Parties to the Montreal Protocol

OP4: To request the Ozone Secretariat to explore the feasibility and cost of developing open-source licensing software that can be integrated into customs and single-window systems, for consideration by the Thirty-Ninth Meeting of the Parties;

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THANK YOU

You can access the full report by scanning the QR code, or visiting the link below

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www.eia-international.org/report/fakes-frauds-and-f-gases

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