
Environment and Climate Regional Accession Network (ECRAN)

Multi-Country Workshop
on Ozone Depleting Gases
(ODS) and Fluorinated
Gases (F-gases)

27-28 May 2014, Tirana

ENVIRONMENTAL AND CLIMA REGIONAL NETWORK FOR ACCESSION - ECRAN

WORKSHOP REPORT

Activity No 1.2.A

**MULTI-COUNTRY WORKSHOP ON OZONE DEPLETING GASES (ODS) AND
FLUORINATED GASES (F-GASES)**

27-28 May 2014, Tirana, Albania



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LIST OF ABBREVIATIONS	
GHG	Greenhouse gases
AGFR	Romanian Refrigeration Association
EC	European Commission
EEA	European Environmental Agency
EPA	Environmental Protection Agency
EU	European Union
F-gases	Fluorinated gases
GWP	Global Warming Potential
HCFCs	Hydrochlorofluorocarbons
HFCs	Hydrofluorocarbons
MRV	Monitoring, reporting and verification
MS	Member States
ODS	Ozone-depleting Substances
PFCs	Perfluorocarbons
POM	Placing on the market
RAC&HP	Refrigeration, air-conditioning and heat pump
REPD	Regional Environmental Protection Department
SF6	Sulphur Hexafluoride
SNFPI	State Non-Food Product Inspection
UNEP	United Nation Environment Programme
WG	Working Group



I. Background/Rationale

The EU candidate and potential candidate countries need to start developing concrete climate policies fully aligned with EU Climate *acquis* and setting GHG emission reduction targets in the context of EU 2020 Climate and Energy Package, the expected EU 2030 climate and energy framework and the need to feed into the 2015 international climate agreement. At present the absence of concrete targets and implementation roadmaps hamper the development of robust climate policies in the region. ECRAN could provide a regional platform to start working on this topic.

There is a need to continue to build critical mass and to expand the target group from government institutions also to parties that have a role in implementing key elements of the climate *acquis*. In addition, the role of Civil Society Organisations and academia needs to be strengthened, especially in the field of strategy development in the field of climate. The awareness and understanding of the EU climate change laws, policies, economic benefits and strategies is crucial to strengthening dialogue and cooperation on climate change between the EU and its partners.

The above described issues will be addressed through a regional exercise on the development of climate policies converging with EU climate *acquis*, with a special focus on the application of modelling, scenario development and tools for the preparation and implementation of low emission strategies.

ODS and F-gases was selected as one of the priority topics on climate *acquis* within the ECRAN Climate Policy Working Group (WG).

Fluorinated Gases (F-gases)

Fluorinated greenhouse gases (F-gases) are powerful greenhouse gases that contribute to global warming if released into the atmosphere, with much greater warming potential than carbon dioxide (CO₂). In order to further reduce emissions of greenhouse gases, Regulation No. 842/2006 and 10 pieces of implementing Regulations were adopted. Furthermore, reporting provisions have been introduced to facilitate monitoring of the Regulation's measures and to ensure that its objectives are being met.

The F-gas Regulation aims at:

Improving the **prevention of leakage** from equipment containing F-gases. Measures comprise: containment of gases and proper recovery of equipment; training and certification of personnel and of companies handling these gases; labelling of equipment containing F-gases; reporting on imports, exports and production of F-gases;

Avoiding F-gases in some applications where environmentally superior alternatives are cost-effective. Measures include restrictions on the marketing and use of certain products and equipment containing F-gases.

However, these gases are contributing to climate change, thus the EU decided to regulate their marketing and use. During this transitional period until all uses of F-gases can be phased out, it is also necessary to regulate the applications using F-gases with regard to checking, filling and disposal



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operations to minimise leakage. For this purpose, a certification scheme is established for certain companies, which require that staff involved in handling applications with F-gases have the necessary qualifications and training.

A new revised F-gas Regulation came into force in May 2014. The new Regulation reduces F-gas emissions by two-thirds of today's levels by 2030 and ban the use of F-gases in some new equipment where viable climate-friendly alternatives are readily available. The main novelty and driver for moving towards climate-friendly technologies is the introduction of a phase-down measure which from 2015 will limit the total amount of hydrofluorocarbons (HFCs) – the most significant group of F-gases - sold in the EU and reduce their quantities in steps to one-fifth of today's sales by 2030. This measure is accompanied by a number of new restrictions on the use and sale of F-gases in equipment.

Ozone Depleting Substances (ODS)

The European Union has a strong commitment to protect the ozone layer. To facilitate its recovery the EU has implemented legislation that goes beyond its obligations under international agreements. The consumption of ozone depleting substances, as far as controlled under the Montreal Protocol, has already been reduced to zero since 2010, ten years before the international target of 2020.

To protect the ozone layer the international community has established the Vienna Convention and the Montreal Protocol on substances that deplete the ozone layer in 1987, phasing out chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, carbon tetrachloride and methyl bromide.

The European Union and its Member States are at the forefront of ozone layer protection with a policy that often goes beyond the requirements of the Montreal Protocol.

Furthermore, EU has put in controls for any use of ozone depleting substances that are not considered as consumption under the Montreal Protocol, such as uses of ODS as feedstock in the chemical industry. In particular the EU has banned the use of the toxic methyl bromide for any kind of fumigation.

The EU legislation acted as a driver for the development of innovative technologies such as alternatives for methyl bromide alternatives, new blowing agents for insulation foam, CFC-free metered dose inhalers for the treatment of asthma, and the creation of innovative fire-fighting systems on board ships and airplanes which do not use halons.

The global consumption of ODS has been reduced by some 98% since countries started taking action under the Montreal Protocol. As a result the atmospheric concentration of the most aggressive types of ODS is falling and the ozone layer is showing the first signs of recovery. Nevertheless, it is not expected to recover fully before the second half of this century.

The ECRAN Multi-country Workshop on ODS and F-gases took place in Tirana, Albania, on May 27-18, 2014.



II. Objectives of the training

General objectives

The objective of the training was to familiarise the beneficiary with the F-gases and the ODS regulations, with all the important details explained, such as the planning and preparation, certification, verifications and training schemes, labelling, responsibilities for commercial, industrial and public sector organizations, as well as reporting requirements in the transposition and implementation of F-gases regulations.

Additionally, this was an opportunity for sharing of experiences on the knowledge and capacity in the implementation of the Vienna Convention and the Montreal protocol in the ECRAN beneficiary.

Specific objectives

- To present information about main objectives and provisions of ODS and F-gases
- To present information about principal obligations of MS,
- To present experience of MS and Candidate Countries,
- To identify the list of most important planning documents for the approximation process,
- To discuss and agree possible outline for national action.

Results/outputs

The workshop targeted the following topics and results/outputs:

Challenges of F-gases and ODS (extreme climate events, climate and energy)

- The scientific problem of F-gases and ODS
- Emissions trends for F-gases and ODS
- International Policy processes regarding ODS and F-gases (Vienna Convention and Montreal Protocol)

Introduction to EU Legislation on F-gases

- F-gases Regulation, basic acts and 10 implementing acts
- Main aims and provisions
- Principal obligations of Member States (MS)
 - Planning and preparation
 - Certification, verification and training schemes
 - Labelling
 - Responsibilities for commercial, industrial, and public sector organisations
 - Reporting requirements
- New Developments (2014)
- EU legislation on ODS
- Main aims and provisions
- Licensing and controlled substances
- Role of Commission



- Principal obligations of MS
 - Obligations of the commercial, industrial, and public sector organisations
 - Obligations of Competent Authorities
 - Reporting by MS
 - Considerations for planning and preparations

Practical exercises on ODS and F-gases regarding country's regulations.

Requirements for National systems for estimation of ODS and F-gases.



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III. EU policy and legislation covered by the training

EU regulations covered during the workshop are the following:

F-gas Regulation - Basic Act

Regulation (EC) No. 842/2006 of the European Parliament and of the Council of *17 May 2006* on certain fluorinated gases (OJ L 161/1, 14.6.2006)

F-gas Regulation – Ten Implementing Acts

1) Leak checking – Stationary refrigeration & air conditioning

Commission Regulation (EC) No. 1516/2007 of 19 December 2007 establishing standard leakage checking requirements for stationary refrigeration, air-conditioning and heat-pump equipment containing certain fluorinated greenhouse gases (OJ L 335/10, 20.12.2007).

2) Leak checking – Fire protection

Commission Regulation (EC) No. 1497/2007 of 18 December 2007 establishing standard leakage checking requirements for stationary fire protection systems containing certain fluorinated greenhouse gases (OJ L 333/4, 19.12.2007).

3) Labelling

Commission Regulation (EC) No. 1494/2007 of 17 December 2007 establishing the form of labels and additional labelling requirements as regards products and equipment containing certain fluorinated greenhouse gases (OJ 335/25. 18.12.2007).

4) Producer reporting

Commission Regulation (EC) No. 1493/2007 of 17 December 2007 establishing the format for the report to be submitted by producers, importers and exporters of certain fluorinated gases (OJ L 332/7, 18 December 2007).

5) Qualifications/Certification – Stationary refrigeration and air conditioning

Commission Regulation (EC) No 303/2008 of 2 April 2008 establishing minimum requirements and the conditions for mutual recognition for the certification of companies and personnel as regards stationary refrigeration, air conditioning and heat pump equipment containing certain fluorinated greenhouse gases (OJ L 92, 3.4.2008, p. 3–11).

6) Qualifications/Certification – Fire protection systems and fire extinguishers

Commission Regulation (EC) No 304/2008 of 2 April 2008 establishing minimum requirements and the conditions for mutual recognition for the certification of companies and personnel as regards stationary fire protection systems and fire extinguishers containing certain fluorinated greenhouse gases (OJ L 92, 3.4.2008, p. 12–16).



7) Qualifications/Certification – High voltage switchgear

Commission Regulation (EC) No 305/2008 of 2 April 2008 establishing minimum requirements and the conditions for mutual recognition for the certification of personnel recovering certain fluorinated greenhouse gases from high-voltage switchgear (OJ L 92, 3.4.2008, p. 17–20).

8) Qualifications/Certification – Gas-based Solvents from equipment

Commission Regulation (EC) No 306/2008 of 2 April 2008 establishing minimum requirements and the conditions for mutual recognition for the certification of personnel recovering certain fluorinated greenhouse gas-based solvents from equipment (OJ L 92, 3.4.2008, p. 21–24).

9) Qualifications/Training and training attestations – Mobile air conditioning

Commission Regulation (EC) No 307/2008 of 2 April 2008 establishing minimum requirements for training programmes and the conditions for mutual recognition of training attestations for personnel as regards air-conditioning systems in certain motor vehicles containing certain fluorinated greenhouse gases (OJ L 92, 3.4.2008).

10) Format for notification of training programmes

Commission Regulation (EC) No 308/2008 of 2 April 2008 establishing the format for notification of the training and certification programmes of the Member States (OJ L 92, 3.4.2008, p. 28–34).

ODS

1. Regulation (EC) No. 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer. (*OJ L 286, 31.10.2009*).
2. Commission Regulation (EU) No 744/2010 of 18 August 2010 amending Regulation (EC) No 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer, with regard to the critical uses of halons (*OJ L 218, 19.8.2010*).
3. Commission Regulation (EU) No 291/2011 of 24 March 2011 on essential uses of controlled substances other than hydrochlorofluorocarbons for laboratory and analytical purposes in the Union under Regulation (EC) No 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer (*OJ L 79, 25.3.2011*).
4. Commission Regulation (EU) No 537/2011 of 1 June 2011 on the mechanism for the allocation of quantities of controlled substances allowed for laboratory and analytical uses in the Union under Regulation (EC) No 1005/2009 (*OJ L 147, 2.6.2011*).
5. Commission Decision 2010/372/EU on the use of controlled substances as process agents under Article 8(4) of Regulation (EC) No. 1005/2009 (*OJ L 169, 3.7.2010*).



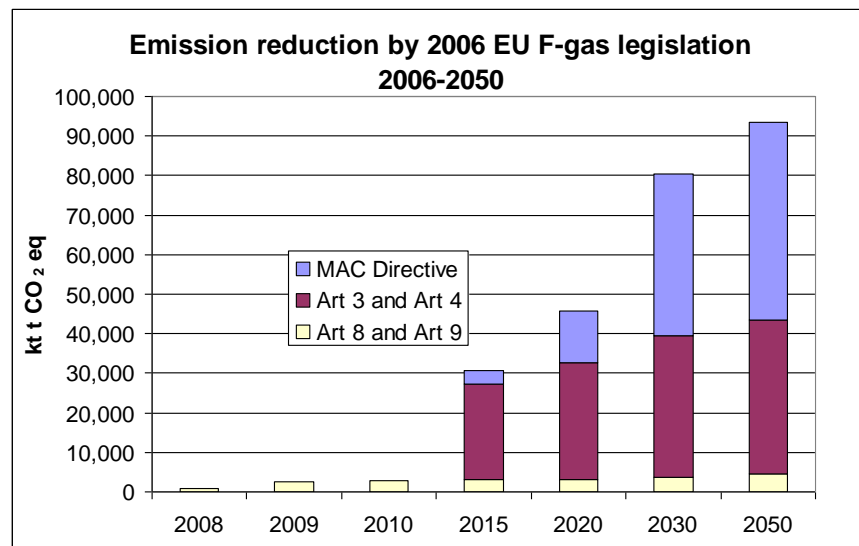
IV. Highlights from the training workshop

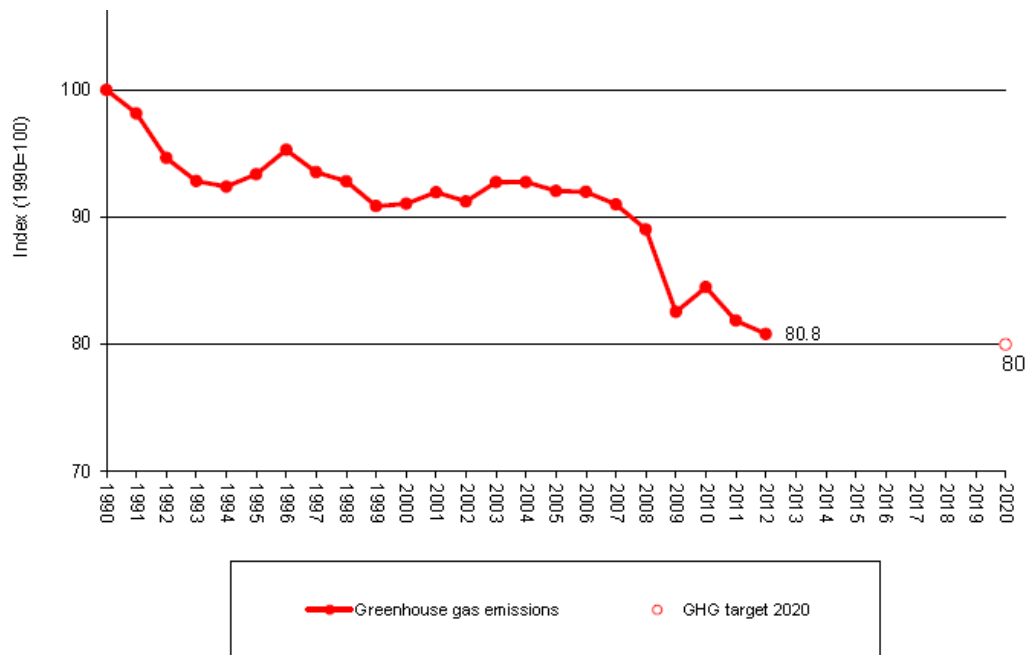
Reference is made to Annex I for the agenda, and Annex III for the presentations.

Day 1 –Tirana, Albania, 27 May 2014.

Introduction to F-gases and ODS substances – trends and international policy responses

- Presentation of scientific problems with ODS and F-gases, importance of ozone for the life on earth and implications of its degradation.
- Most common uses of ODS and F-gases, their atmospheric lifetime, global emission and ozone depletion potential, as well as global warming potential.
- Montreal protocol milestones. Current situation and future projections of halogen source gases emissions regarding natural emission. Regress of Montreal protocol Amendments, as well as Vienna Convention on the Protection of Ozone Layer, and their ratification.
- EU legislation on ODS, with the focus on Council regulations 3039/94/EC, 3037/2000/EC, and 1005/2009/EC, along with their amendments.
- EU legislation of F-gases, with the effort on Council Regulations 842/2006/EC and 2006/40/EC, along with ten implementing Commission regulations.
- Effort of some Member States (MS) to go beyond the F-gases provisions by introducing additional leakage checks for mobile sources and small stationary equipment, record keeping extension, etc.
- Effects of the F-gases regulations, their effectiveness and efficiency, and also the 2050 target visually presented.





Brief review of EU legislation on Fluorinated Greenhouse gases

- Current and revised EU F-gas legislation was presented, outlining the revised one, (EU) 517/2014 that will replace current Regulation 842/2006 from January 1, 2015.
- A list of F-gases was introduced, that includes Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur Hexafluoride (SF6), as well as preparations (mixtures) containing those gases, except for preparations of Global Warming Potential (GWP).
- Placing on the market (POM) and use of bans for F-gases were described. POM in Regulation 842/2006 concerns only products and equipment containing or relying on F-gases (supplied or made available to the third Party for the first time) – but container is defined as product, so containers containing F-gas which enter the EU territory and are delivered as such to the final user, are considered as placed on the market .
- Labelling provisions regarding the F-gases oblige the exporter or the importer to do the proper labelling.
- Understanding of F-gas emission control was described, with an emphasis on the “operator” who has to exercise actual power over technical functioning of the equipment and who plays a crucial role in implementation of both ODS and F-gases Regulations. In addition, the operator is obliged to maintain records regarding the ODS and F-gases.
- Certification of technicians dealing with F-gases was explained as mandatory
- Mobile Air Conditioning Directives 2006/40/EC and 2007/3/EC were presented, and as all directives has to be adopted through the MS national legislation Highlights of new EU F-gas Regulation (EU), that was approved in April 2014 and will replace current Regulation, were presented.

F-gases Regulation – Principal Obligations of Member States

- Introduction to the obligations of MSs Administrations contained in the EU F-gases legislations. Competent Authority needs to be established to provide responsibility for



certain provisions. Usually, the competent authority with overall responsibility is Ministry of Environment however; other Ministries and governmental bodies may play an important role in certain areas.

- Information was provided regarding the current Regulation and revised regulation of MSs obligations. The revised regulation implies the direct responsibility of F-gas suppliers. Moreover, the revised regulation promotes trainings and certification of certain personnel.
- Main sectors are presented that cover the EU F-gas legislation
 - Refrigeration, air-conditioning and heat pump (RAC&HP) sectors where HFCs and PFCs are used as refrigerants;
 - Fire Protection sector, HFCs and PFCs as fire extinguishers;
 - Electrical switchgear sector, where SF₆ are used as insulating gas;
 - Solvent sector, where HFCs and PFCs are used as solvents for cleaning and etching in electronic and machine industry;
 - Production of foams and pre-blended polyols for foams, HFCs used as foam blowing agents;
 - Production of aerosols and sprays where HFCs is used as aerosol propellants;
 - Magnesium die-casting process, where SF₆ is used as insulating gas;
 - Filling vehicle tires, where SF₆ is used as rubber protecting gas;
 - Production of sports footwear, where SF₆ and PFCs are used for filling air bags in shoe soles;
 - Production of windows, where SF₆ and PFCs used as insulating gas.
- Obligation of all stakeholders dealing with G-gases is to avoid intentional release of fluorinated greenhouse gases into the atmosphere in situations where the release is not technically necessary for the intended use, according to the revised regulation.

Brief review of EU legislation on ODS

- Objective of the EU candidate and potential candidate countries is to make the industry and administration fully prepared for transposition and implementation of the EU legislation.
- ODS Regulation (EC) No. 1005/2009 was presented, along with its provisions of the Montreal Protocol regarding controlled substances, new substances, and products and equipment containing or relying on controlled substances.
- Ban on import and export of controlled ODS would also need to be introduced in each of the EU candidate or potential candidate country, bar the exceptional import for emergency use, destruction, re-packaging or critical use. The EU candidate and potential candidate countries will certainly face challenges in implementing this regulation.
- Ban on import and export of products and equipment containing or relying on controlled ODS except for destruction, as personal effects, halons for critical use, scientific uses, or authorised ones was also discussed.
- Issue of “reclamation” definition contained in Regulation (EC) 1005/2009, stating that reclamation is reprocessing of a recovered controlled substance in order to meet the equivalent properties of a virgin substance, and taking into account its intended use was explained.
- Registration of entities dealing with ODS is mandatory, and the list of eligible importers/exporters of ODS is published each year in the Official Journal of the EU. Records keeping is mandatory for any entity dealing with ODS.



- Annual reporting concerning ODS is mandatory for producers, importers/exporters, process agents, feedstock users, and destruction facilities.
- Proper labelling must reflect intended use of ODS and must contain information that ODS from a particular container may be applied only for that particular purpose. Labels on reclaimed HCFC containers must contain information about the name and address of reclamation facility, while labels on RAC&HP where recycled HCFC was used must contain information on the type and quantity of substance.
- According to the Regulation on ODS, leakage is required to be checked for stationary RAC&HP equipment and fire protection systems containing controlled ODS:
 - For more than 300 kg, checking is required once every three months;
 - For more than 30 kg, checking is required once every six months;
 - For more than 3 kg, checking is required once every twelve months;
 - While after reparation, equipment shall be checked for leakage after one month.
- Mandatory recovery of controlled ODS for destruction, recycling or reclamation was presented, As well as for the F-gases, training and certification of personnel must be organised for ODS. There must be minimum qualification for technicians in RAC&HP and fire protection sector, and for the customs personnel.
- Infringement of the provisions of Directive 2008/99/EC are considered unlawful and a crime offence. MSs are yet to introduce penalties for not obliging with Regulation 1005/2009.

Principal obligations of Member States resulting from the EU ODS legislation

- Affiliation with labelling and licensing of ODS.
- Mandatory contents of the ODS labelling were presented. Labelling must be done in either national language or officially recognized language in the state. Labelling must be done in the following categories:
 - Feedstock;
 - Process agents;
 - Essential laboratory and analytical uses (other ODS than HCFCs);
 - Reclaimed HCFCs (till 31 December, 2014);
 - Use of recycled or reclaimed HCFCs for servicing;
- Licensing relates to trade (import and export) and it concerns both substances and equipment containing or relying on ODS. It does not apply for custom transit for up to 45 days.
- Therefore, controlling measures must be set for both labelling and licensing. Licensing control is to be done by the customs authority, while labelling inspection should include the customs, trade inspection and environmental inspection.
- Participants were introduced to the Regulation (EU) 291/2011 and were provided with an online Laboratory-ODS-database and licensing manual from European Commission site.
- In accordance with Article 11 of the regulation, and regarding placing on the market and use of HCFCs, MS must prepare the following:
 - Ban HCFCs from placing on the market (unless excepted, as in Chapter III);
 - National reporting system;
 - Control measures (previously mentioned inspections);
- Basics of Regulation (EU) 744/2010 regarding halons was presented. MSs need to set up a halon bank.



- According to Article 22, ODS contained in RAC and equipment containing solvents or fire protection systems and fire extinguishers must be recovered for destruction, recycling or reclamation during the maintenance, servicing of equipment or before the dismantling or disposal of equipment. Destruction is approved only by technologies that are the most environmentally acceptable and/or approved (Annex VII).
- Proposal for the EU candidate and potential candidate countries is to set up a national data reporting system that will collect the data and prepare a final report on ODS. MSs must submit their reports by June 30th each year, with the data for the previous calendar year. The format is provided by the European Commission.
- Producers of ODS must also submit annual reports that has to contain production, POM, essential laboratory and analytical uses, recycling, reclamation and destruction, stocks, as well as purchases and sales to other producers. Importers and exporters of ODS also need to provide the annual reports.
- Trainees presented an example of an integrated reporting system in the Czech Republic. It was explained how the system operates, together with the instructions for registering and fulfilment.

F-gases and ODS legislation: Implementation in Romania

- After Romania joined the EU in 2007, it needed to comply with EU regulation, and it was given a transitional period to do so. Currently, Romania is in line with all EU legislation, as well as active participants in the EU and international meetings and conferences.
- After 2007, Romania had to comply with the Regulation 842/2006, (to be replaced with the revised Regulation 157/2014). Country's obligation was to set up the national scheme for training, evaluation and certification mechanism, in order to overcome the transitional period in the shortest period.
- According to the instructions of the Environment and Forests Ministerial Order, Romania nominated a certification body to certify operators (companies and personnel) as per activities mentioned in Article 2, Regulation 303/2008. This also applies to personnel carrying out activities as per Article 1 of the Regulation 307/2008, In addition, the Ministry nominated two bodies that will be responsible for personnel trainings. More than 100 technicians from Romanian Refrigeration Association (AGFR) were trained in the very first year.
- The role of the Ministry of Environment in the setting up the training and evaluation centres and certification body was presented, including the site inspection and coordination. Training and evaluation centre was described, including curricula, handbooks, lecturers, participants and examination. Certification body was nominated by the ministerial order with personal management system and secretariat responsible for the arrangements. The centres were set up in eight regions in Romania.
- So far, 321 operators were trained and 141 certified, while 14 companies were certified in all eight regions.

F-gases and ODS legislation: Implementation in Slovenia

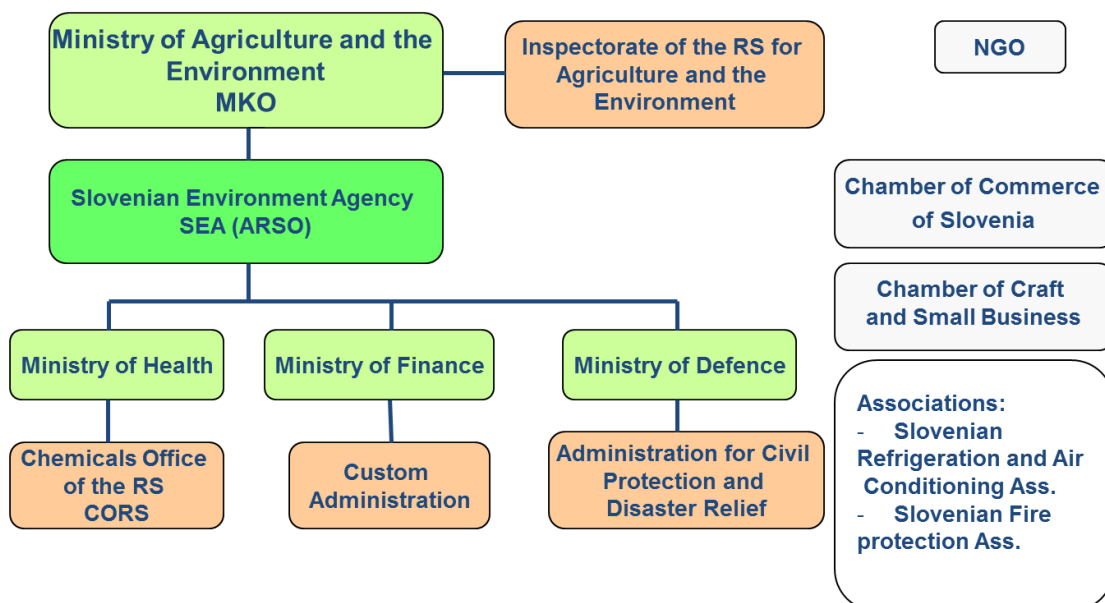
- Organizational structure of legislation implementation



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- In 2003, Slovenia passed ODS legislation regarding CFCs. Halons regulation was also passed on 2003, while ODS legislation was extended to include F-gases and to apply it to sectors relying on both ODS and F-gases.
- Responsible institutions for the implementation of ODS and F-gases are Ministry of Agriculture and Environment, Slovenian Environmental Agency, and Inspectorate for Agriculture and Environments.
- The main stakeholders are operators and personnel, but affected parties also include:
 - producers, importers and exporters of equipment;
 - collectors, processors and disposers of waste gases and equipment;
 - producers, distributors, importers and exporters of F-gases and ODS;
 - Ministries, competent authority, EU Commission;
- As a good practice, it was presented how Slovenia decided to introduce additional actions stricter than the requirements of the EU legislation with regards to the registration of stationary equipment of ODS (since 2004) and F-gases (since 2008), and annual report submission of certified company and/or personnel. Also, environmental tax was introduced in Slovenia.
- The central aspect of emission reduction is to establish a training and certification system of personnel and companies involved in handling of ODS and F-gases. In 2010, Slovenia started this process.
- Personnel carrying out leakage checking, gas recovery, plant installation, maintenance or servicing of equipment that contains or is designed to contain ODS or F-gases shall have an appropriate qualification. Certificates are issued only by the Ministry of Agriculture and Environment.
- Training and examination process was presented with proper personnel requirements, education, theoretical and practical examination and certification.
- Regarding certification of companies, a legal person or a sole trader carrying out installation and maintenance or servicing of refrigeration, air-conditioning and/or heat pump equipment or fire protection equipment shall hold a company certificate. Certification body that issues certificates for companies is Slovenian Environmental Agency.

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F-gases and ODS legislation: Implementation in Lithuania

- In Lithuania, Ministry of Environment is responsible for ODS and F-gases. Implementation of legislation process was divided into steps:
 - First step – Division of responsibilities between the national institutions. Environmental Protection Agency (EPA) is responsible for reporting, while the , Regional Environmental Protection Department (REPD) is responsible for record checking and inspection of the companies in the scope of containment, recovery and certification. State Non-Food Products Inspection (SNFPI) is responsible for inspection of the companies in the scope of labelling and POM. However, the difficulties of this approach were to convince personnel of these institutions to take on additional duties.
 - Second step – Adoption of the rules on penalties. The amendment of the Administrative Infringement Code was adopted in 2008 by the Parliament, establishing the penalties applicable to the infringements of the provisions of the F-gas Regulation. Penalties vary from EUR 140 to EUR 2,800 including confiscation of products and equipment.
 - Third step – Establishment of the training and certification system for the personnel. Six formal vocational training programmes are available for personnel, while two organizations are licensed to issue certificates.
 - Fourth step – Establishment of the attestation system for companies. Company certification system has yet to be aligned with the the EU requirements. By the order of the Ministry of Environment, more detailed requirements regarding certification need to be established. EPA will be responsible for the issuance of certificates. However, in contrast to Romania and Slovenia, in Lithuania certificates for both companies and personnel do not have and expiry date.
 - Fifth step – Improvement of the F-gases and ODS data collection system. All entities dealing with ODS and F-gases are obliged to submit reports to EPA and REPD. Lot of difficulties were encountered while calculating t from metric tons to CO₂ equivalent.

- Aside from the Ministry of Environment, EPA and REPD, SNFPI (under Ministry of Economy), customs, and Ministry of Education and Science also take part in the implementation. In Lithuania, F-gases contribute 1% to the total national GHG emissions. However, ODS used for servicing of stock equipment, were reduced by 97% compared to 2008. The national ODS legislation was introduced by the Ministry of Environment in 2003, and was amended in 2011.

Practical Issues in implementation for Member States

- Objectives and lines of action of legal framework on F-gases were presented, including the Regulation 842/2006 and new F-gas Regulation 517/2014. Intentional release of F-gases is prohibited, while leakages are to be prevented by all available technical means. All the works on equipment containing or relying on F-gases are to be carried out by certified technical personnel.
- Equipment containing F-gases in quantities equivalent of at least 5 tonnes of CO₂ must be regularly checked for leaks.



CO ₂ eq in tonnes	Frequency of checks (max number of months between checks)	
	No LDS	LDS installed
5-50	12	24
51-500	6	12
500+	3	6

- Operators of equipment dealing with F-gases are required to be checked for leaks and maintain records for each piece of such equipment with information such as quantity and type of F-gas installed, dates and results of the checks carried out, quantity of F-gases added during installation maintenance, etc.
- Certification requirements for MS were very well presented, including certification of personnel and certification for companies. Certification and evaluation bodies need to be established if they do not exist, and they need to be independent in carrying out their activities.

Certificates and Training attestations for natural persons (personnel)

Certificates for companies

REG/ DIR	Type of equipment	Technical tasks			
		Leak Checking	Recovery	Installation	Maintenance Servicing
303	Stat. Refrigeration			Certificate	Certificate
	Stat. A/C			Certificate	Certificate
	Stat. Heat Pumps			Certificate	Certificate
304	Stat. Fire protection			Certificate	Certificate
305	Elec. Switchgear				
306	Solvents				
307 DIR40	MAC				

- Key steps in using the EU F-gases legislation as a guiding framework:
 - Understanding the F-gas legislation. Reducing emission of F-gases reduces negative impact on the environment.
 - Analysis of current situation. Professional sectors involved in F-gas management must be mapped in detail. Allocate stakeholders and professional bodies. Also, education and training system must be established and well organized, as well as certification and licensing system.
 - Evaluation and decisions. SWOT analysis of all professional bodies involved in implementation of legislation. It is also important to communicate with countries that had already implemented the EU legislation and analyse the case studies and lessons learnt.
 - Legal acts. Design legal system in collaboration with all governmental bodies.



- It is of paramount importance that the chain of technical actions of recovery-collection-transportation-recycling-destruction must be in place and in workable order (legally and technically) if the final objective of effectively containing the f-gases is to be achieved.

Experience and capacities on implementing legislation in the framework of the Vienna Convention and the Montreal protocol and the EU F-gases Regulation in the ECRAN beneficiaries

- Albania. Albania ratified Vienna Convention and the Montreal protocol in 1999. In 2006, all amendments to the Montreal protocol were approved. Regarding ODS, Albania is complying with Montreal Protocol, however, legislation on ODS needs to be revised. It is foreseen that by the end of 2016, adoption of EU legislation on F-gases, ODS and GHG emissions will be adopted. Competent authority for designing and implementation of legislation are Ministry of Environment and Ministry of Finance/Customs. 2014 is the starting point for reduction of HCFC. It is foreseen that by the end of 2015, quantity of imported HCFC will be reduced by 5% and in 2020 by 35%. Albania customs legislation has been approved and is more coordinated with EU legislation. Albania has set ambitious actions regarding the transposition and implementation of EU legislation on ODS and F-gases in the national legislation.
- Bosnia and Herzegovina. Bosnia and Herzegovina was granted a full Party Status in Vienna Convention and Montreal Protocol in September 1992, and has also ratified amendments to the protocol. Competent governmental bodies involved in implementation of these international agreements are Ministry of Foreign Trade and Economic Relations, Ministries for Environment from both entities, and Customs Sector. Also, Ministry of Foreign Trade and Economic Relations is responsible for coordinating implementation, preparing annual reports and issuing licenses and permits for ODS import. Ministries for environment are included in implementation of rulebooks on ODS, issuing preliminary approvals and opinions for issuance of licenses and permits. Taxation Authority as part of the Customs Sector is responsible for the control of ODS trade. Two centres were established for education of refrigeration and air conditioning technicians. In May 2014, 19 mobile centres for collecting and recycling of ODS are established. Existing legal framework on ODS is established in accordance to the international obligations, but is currently in the revision process. Control and inspection of the equipment containing ODS is in place.
- The former Yugoslav Republic of Macedonia. The former Yugoslav Republic of Macedonia ratified Vienna Convention and Montreal Protocol along with its amendments. National legislation prohibits production and trade of ODS and products containing ODS, import of products containing HCFCs and limited import of air conditioning HCFCs. So far, they managed to reduce ODS consumption by 98%. Macedonians have also invested in several projects regarding phasing out of GHGs. 5% of HCFCs annual reduction is foreseen until 2020. There is a progress in refrigerant recovery and recycling. System for permits for controlled substances trade exists since 1997. Electronic licensing system is a tool that accelerates and facilitates the HCFCs and HFCs trade. Leakages checks are to be performed regularly with proper book keeping. So far, 199 technicians are trained and certified for refrigerants management systems.



- Kosovo¹. As not being a member of UN, Kosovo does not have an active part in neither Montreal Protocol, nor Vienna Convention, however, they adopted a law on ODS and F-gases in 2013, which still needs to be revised. Kosovo also has Air Quality Strategy and National Strategy for Climate Change, but with the action plan in preparation. Kosovo has ambitious future plans to organize workshops with relevant institutions, establish operators' register and carry out trainings and certification. As they are party to the Kyoto Protocol, they are not to provide reports on ODS and F-gases. However, they still provide reports on national level and report to European Environmental Agency. According to the data provided, imports and use of solvents and refrigerating equipment has decreased dramatically since 2008.
- Montenegro. Montenegro indicated significant progress in recent developments as regards transposition of requirements following the ODS and F-gases Regulations. They have adopted:
 - Country Programme for elimination of ODS in 2007. The objective was zero tonnes in 2010 and it was achieved.
 - Terminal phase-out management plan for CFSs in 2007. Recovery/recycling scheme to be established, but they have already started with trainings of trainers, technicians and custom officers.
 - HCFC phase-out management plan in 2010. Objective is to reduce HCFC substances in accordance with Montreal protocol.
- Ministry of Sustainable Development and Tourism is responsible for policy making, creation of legal framework and supervision. EPA is involved in implementation, while Inspection is responsible for enforcement. Montenegro is currently identifying authority for training and certification.

Practical exercise

Trainees were organized in groups in order to interact and communicate through a practical exercise. The objective was to prepare a roadmap for the implementation of F-gas regulation in an imaginary country, step by step. The idea was to introduce the approach and detailed steps throughout the process, including the F-gases Regulation and its implementing acts>

Four groups were made out of participants from:

- Albania;
- Former Yugoslav Republic of Macedonia;
- Bosnia and Herzegovina and Montenegro;
- Kosovo;

The groups were given 45 minutes to prepare a maximum eight-slide presentation of no longer than 10 minutes, with assistance of their mentors (trainers)..

The presentations of the group work demonstrated that the participants managed to get a good grip of the material presented. All of the groups presented their way of EU legislation transposition and implementation in a very similar way, providing ample space to the the most important issues in the process.

¹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.



For all of the groups the first task of the process was to do proper analysis of the current situation in the imaginary country, and to identify:

- Stakeholders;
- Import/export and current consumption of ODS and F-gases;
- Existing legislations;
- Technical capacities;
- Institutional bodies;

Furthermore, the process also defined competent authorities and bodies that will be involved the implementation process:

- Ministries
- Governmental Agencies
- Customs
- Other (NGOs, international organizations, bordering countries, etc.).

After defining authorities, certification and training centres need to be established. Equipment containing ODS and F-gases must be operated and maintained only by the certified technicians.

During the transposition process, national legislation must align with the EU Regulations, mostly regarding the:

- Control and use;
- Labelling and Licensing
- Reporting;
- Inspection;
- Penalties.

Responsible authorities along with it personnel must make sure that the implementation process is taking place, and that the enforcement of Regulations is properly implemented.



V. Evaluation

Summary of the training evaluation report, developed on the basis of analysis of the training questionnaires.

Most trainees and participants indicated their overall satisfaction with the training content. Level of skills and understanding of the trainees was at the average level. Overall, the majority of trainees indicated that the training was very well organised, however, some of the trainees were not able to follow the subject due as too much information was presented in a short period of time.

There was a lack of interaction on the trainee's part, especially during the first day sessions. Second day training involved more communication and interaction.

Statistical Information

1.1	Workshop Session	Regional Workshop on ODS and F gases
1.2	Facilitators name	Imre Csikós/ (ECRAN) József Feiler (ECRAN)/Róbert Tóth (HU)/Janusz Kozakiewicz (PL)/Jana Masickova (CZ)/Claudia Dumitru (RO)/Irena Koteska (SL)/Jurga Rabauskate-Surville (LT)/Stavros Velidis (GR)
1.3	Name and Surname of Participants (evaluators)	As per participants' list.

Your Expectations

Please indicate to what extent specific expectations were met, or not met:

My Expectations	My expectations were met		
	Fully	Partially	Not at all
1. Improved understanding of the EU regulatory architecture related to F-gases and ozone depleting substances	(75%)	(25%)	
2. Improved understanding of the required steps towards transposition and implementation of the obligations arising from the EU F-gases and ODS Regulations	(85%)	(15%)	
3. Practical training session on Day 2 (Transposition work on for F-gases Regulation)	(75%)	(25%)	



My Expectations	My expectations were met		
	Fully	Partially	Not at all
4. Getting prepared for implementation of steps towards transposition of the F-gases Regulations	I (58%)	III (42%)	

Workshop and Presentation

Please rate the following statements in respect of this training module:

Aspect of Workshop	Excellent	Good	Average	Acceptable	Poor	Unacceptable
1 The workshop achieved the objectives set	(75%)	(25%)				
2 The quality of the workshop was of a high standard	I (55%)	III (40%)	I (5%)			
3 The content of the workshop was well suited to my level of understanding and experience	(70%)	I (30%)				
4 The practical work was relevant and informative	I (55%)	III (40%)	I (5%)			
5 The workshop was interactive	(53%)	II (37%)	II (10%)			
6 Facilitators were well prepared and knowledgeable on the subject matter	III (65%)	II (35%)				
7 The duration of this workshop was neither too long nor too short	III (40%)	(45%)	II (10%)	I (5%)		
8 The logistical arrangements (venue, refreshments, equipment) were satisfactory	I (55%)	(25%)		III (15%)	I (5%)	
9 Attending this workshop was time well spent	(75%)	(25%)				

Comments and suggestions



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I have the following comment and/or suggestions in addition to questions already answered:

Workshop Sessions:

- Involve more participants to express the view on the experts' presentations
- Too long
- Some of them could have been shorter, a bit less repetition
- I have learned many things from this workshop
- All ok
- Good
- Good

Facilitators:

- Very good
- Very knowledgeable, informative, great suggestion and advice offered. The occasional times of humour was well used and it was refreshing during the sessions
- Good
- Excellent

Workshop level and content:

- Good
 - The workshop was well organised. It was quite long but the subject matter was technical. Very useful.
 - We should have more workshops organised on this subject matter
 - Good
 - Excellent
-



ANNEX I – Agenda

Day 1 - 27 May 2014, Tirana, Albania

Start	Finish	Topic	Speaker	Sub topic/Content
08:30	09:00	Registration		
09.00	09.30	Welcome and Introduction	Imre CSIKÓS, ECRAN	<ul style="list-style-type: none"> ▪ Introduction of participants ▪ Objectives of the meeting ▪ Approval of the agenda ▪ ECRAN Climate - overview
09.30	10.15	Introduction to the challenge of F-gases and ODS substances – trends and international policy responses	Robert TOTH, Hungarian Meteorological Service	<ul style="list-style-type: none"> ▪ The scientific problem of F-gases and ODS ▪ Emissions trends for F-gas and ODS ▪ International policy processes regarding ODS/F-gases (Vienna Convention/Montreal Protocol)
10.15	11.00	Brief review of EU legislation on Fluorinated Greenhouse gases	Dr. Janusz KOZAKIEWICZ, Industrial Chemistry Research Institute Poland	<ul style="list-style-type: none"> ▪ F gas Regulation – basic act ▪ F-gases Regulation – 10 implementing acts ▪ Summary of main aims and provisions ▪ Principal obligations of Member States ▪ New developments (2014) ▪ Discussion
11.00	11.15	Coffee Break		
11.15	12.00	F-gases Regulation – Principal Obligations of Member States	Dr. Janusz KOZAKIEWICZ, Industrial Chemistry Research Institute Poland	<ul style="list-style-type: none"> ▪ Planning and preparation ▪ Certification and verifications and training schemes ▪ Labelling ▪ Responsibilities for commercial, industrial and public sector organizations ▪ Reporting requirements
12.00	13.00	Brief review of EU legislation on ODS	Dr. Janusz KOZAKIEWICZ, Industrial Chemistry Research Institute Poland	<ul style="list-style-type: none"> ▪ Summary of main aims and provisions ▪ Licensing of controlled substances ▪ Role of Commission (Licensing)



Start	Finish	Topic	Speaker	Sub topic/Content
13.00	14.00	LUNCH		
14.00	14.45	Principal obligations of Member States resulting from the EU ODS legislation	Jana MASICKOVA, Ministry of Environment, Czech Republic	<ul style="list-style-type: none"> ▪ Obligations of the commercial, industrial and public sector organizations (undertakings) ▪ Obligations of Competent Authorities ▪ Reporting by Member States <ul style="list-style-type: none"> - Producers - Exporters and importers - For companies destroying controlled substances - For undertakings ▪ Considerations for planning and preparations
14.45	15.30	F-gases and ODS legislation: Implementation in Romania	Claudia DUMITRU, Ministry of Environment and Climate Change, Romania	<ul style="list-style-type: none"> ▪ Implementation of F-gases Regulations in Romania ▪ Discussion
15.30	15.45	Tea		
15.45	16.30	F-gases and ODS legislation: Implementation in Slovenia	Irena KOTESKA, Slovenian Environment Agency, Slovenia	<ul style="list-style-type: none"> ▪ Implementation of F-gases Regulations in Slovenia ▪ Discussion
16.30	17.15	F-gases and ODS legislation: Implementation in Lithuania	Jurga RABAZAUSKATE-SURVILE, Ministry of Environment, Lithuania	<ul style="list-style-type: none"> ▪ Implementation of F-gases Regulations in Lithuania ▪ Discussion



Day 2 28 May 2014, Tirana, Albania, Venue TBD

Start	Finish	Topic	Speaker	Sub topic/Content
09.00	09.30	Summary of Day 1	Jozsef FEILER, ECRAN	<ul style="list-style-type: none"> ▪ Overview of the key issues discussed ▪ Highlights of legislative trends, obligations for MSs ▪ Most important lessons from member states' implementation
09.30	10.30	Practical issues in implementation for Member States	Stavros VELIDIS, Ministry of Environment, Energy and Climate Change, Greece	<ul style="list-style-type: none"> ▪ Training and certification of personnel and of companies handling these gases ▪ Equipment checks for leak prevention
10.30	10.45	Coffee Break		
10.45	13.15	Experience and capacities on implementing legislation in the framework of the Vienna Convention and the Montreal protocol and the EU F-gases Regulation in ECRAN beneficiaries Max 15 minutes per country	Croatia FYR of Macedonia Kosovo* Bosnia and Herzegovina Albania Montenegro	<ul style="list-style-type: none"> ▪ Implementing legislation on the countries ▪ Legal and institutional framework ▪ F-gases reporting (UNFCCC and MMR) <ul style="list-style-type: none"> - Strengths, weaknesses and needs
13.15	14.15	LUNCH		
14.15	16.00	Practical exercise (Tea will be available)	Facilitated by Imre CSIKÓS, Jozsef FEILER and MS experts	<ul style="list-style-type: none"> ▪ Required steps towards full transposition of the F-gases Regulations <ul style="list-style-type: none"> - Planning - Regulatory obligations for CA and companies - Training requirements - Reporting requirements
16.00	16.30	Conclusion and wrap up	Imre CSIKÓS	<ul style="list-style-type: none"> ▪ Next steps Capacity strengthening

*This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.



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ANNEX II – Participants

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ANNEX III – Presentations (under separate cover)

Presentations can be downloaded from

<http://www.ecrannetwork.org/Climate/Climate-Policy>

ANNEX IV – Training Materials (under separate cover)

Training Materials can be downloaded from

<http://www.ecrannetwork.org/Climate/Climate-Policy>

Regulations on certain fluorinated gases

Regulations on ozone depleting substances



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