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¹ Now Ministry of Environment, Waters and Forests

Contents

Contents.....	3
Abbreviations and Acronyms.....	5
Acknowledgements.....	7
EXECUTIVE SUMMARY	8
INTRODUCTION.....	12
CHAPTER 1: THE CONTEXT OF CLIMATE FINANCE SET-UP IN NON-EU ETS SECTORS IN ROMANIA.....	13
1.1 Overview of climate policy in EU	13
1.2 GHG emission status in non EU ETS sectors	22
1.3 Existing financing programs in non EU ETS sectors	27
1.4 Existing legal and institutional framework for use of revenues from auctioning of EU ETS allowances.....	39
CHAPTER 2: PRIORITIZATION OF SECTORAL PROGRAMS TO BE SUPPORTED FROM EU ETS ACTIONS REVENUE in Romania.....	44
2.1 Proposed criteria for prioritization	44
2.2 Emission reduction potential and cost in non EU ETS sectors.....	44
2.3 Lack of other financing mechanisms.....	46
2.4 Support for job creation.....	47
2.5 Leveraging of public funds	48
2.6 Possibility for rapid development and scale up.....	48
2.7 Proposed sectoral programs to be supported from EU ETS auctioning revenues	49
CHAPTER 3: PROPOSED IMPROVEMENTS IN LEGAL AND INSTITUTIONAL FRAMEWORK for use of revenues from auctioning of EU ETS allowances in Romania.....	57
3.1 Inconsistencies of the current legal framework	57
3.2 Possible options for institutional arrangements of climate programs	58
3.3 Proposed financial and organizational scheme	63
CHAPTER 4: PROPOSED IMPLEMENTATION ARRANGEMENTS FOR USE OF REVENUES FROM AUCTIONING OF EU ETS ALLOWANCES in Romania	64
4.1 Rules and procedures of Climate Investment Fund.....	64
4.2 Project implementation scheme.....	77
CHAPTER 5: POSSIBLE USE OF FLEXIBILITY MECHANISMS IN NON EU ETS SECTORS	81
5.1 Flexibility mechanisms in ESD	81
5.2 Banking and borrowing of AEs during the compliance period	81
5.3 Transfers of AEs between EU Member States.....	81

5.4	Credits from CDM/JI projects.....	82
5.5	Situation with emissions under ESD in 2013.....	82
ANNEX 1:	Experiences of EU countries on use of EU ETS revenue	84
ANNEX 2:	Experience of Romanian organizations in managing grant making and loan programs	100
ANNEX 3:	Proposed eligibility criteria for beneficiary and selection criteria for project in the frame of Climate Investment Program	105

Abbreviations and Acronyms

AC	Advisory Committee
AEA	Annual Emission Allocation
AFOLU	Agriculture, Forestry and Land Use
BAU	Business As Usual
CC	Climate Change
CDM	Clean Development Mechanism
CCS	Carbon Capture and Storage
CER	Certified Emission Reduction
CIF	Climate Investment Fund
COP/MOP	Conference of Parties/Meeting of Parties
CO ₂	Carbon dioxide
CSDF	Civil Society Development Foundation
CU	Coordination Unit
EE	Energy Efficiency
EEX	European Energy Exchange
EC	European Commission
ECD	Effort Sharing Decision
EFA	Environmental Fund Administration
ERU	Emission Reduction Unit
ESCO	Energy Service Company
ETS	Emissions Trading System
EU	European Union
EUR	Euro
EUA	European Union Allowance
EUAA	European Union Aviation Allowance
EU ETS	European Union Emissions Trading System
GDP	Gross Domestic Product
GEO	Governmental Emergency Ordinance
GHG	Greenhouse Gas
GIS	Green Investment Scheme
IA	Implementing Agency
IB MRDPA	Intermediary Body of the Ministry of Regional Development and Public Administration
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
LA	Local Authority

LULUCF	Land Use, Land Use Change and Forestry
MAC	Marginal Abatement Curve
M€	Million Euros
NAP	National Allocation Plan
NER	New Entrants Reserve
MEWF	Ministry of Environment, Waters and Forests
MMR	Monitoring Mechanism Regulation
MPF	Ministry of Public Finance
MS	Member States
MSR	Market Stability Reserve
MW	Megawatt
NAP	National Allocation Plan
NER	New Entrants' Reserve
NGO	Non-Governmental Organization
NIP	National Investment Plan
NRDP	National Rural Development Program
OP	Operational Program
PIN	Project Idea Note
PV	Photovoltaic
RAS	Reimbursable Advisory Services
R&D	Research and Development
RE	Renewable Energy
RES	Renewable Energy Sources
RFEE	Romanian Fund for Energy Efficiency
RHI	Renewable Heat Incentive
RHPP	Renewable Heat Premium Program
RON	Romanian Leu
SMEs	Small and Medium Enterprises
SWOT	Strengths, Weaknesses, Opportunities, Threats
TA	Technical Assistance
UK	United Kingdom
UNDP	United Nations Development Program

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² The current name of the ministry is Ministry of Environment, Waters and Forests (MEWF)

EXECUTIVE SUMMARY

The principal objective of this report is to propose improvements on management of revenue from the auctioning of EU ETS allowances, as well as describe possible use of flexibility mechanisms in Romania, in order to mobilize and enable both public and private actors to reduce greenhouse gas (GHG) emissions from economic activities in non EU ETS sectors in line with EU targets. The report focuses on possible actions in the timeframe 2016-2020, aligned with EU ETS phase and EU target for 2020 and 2030.

The report is positioned amid the wider context of a vision for Romania to become a climate resilient, low-carbon economy, which has mainstreamed its climate policies and actions into smart, green, and inclusive growth, described in the National Climate Change and Low Carbon Green Growth Strategy for Romania 2016-2030 and 2015-2020 Climate Action Plan prepared by the World Bank for Romania. The hope is that, by 2050, the country will have made the transition to a society in which social, economic, and environmental policies and actions are interlinked, and designed to ensure sustainable development, with high living standards for all, and a high environmental quality.

The report found that until now, there had been no clear and effective procedure for the administration of ETS auctioning revenue, and no selection and prioritization criteria. The lack of selection and prioritization criteria and guidance for using ETS auctioning revenue to finance GHG emission reduction projects allowed for the selection of projects without proper assessment in terms of their reduction of GHG emissions, as well as cost effectiveness and other important factors.

The authors of the report also come to the conclusion that in order for the ETS auctioning revenue to constitute a viable and longer term climate financing program, it is necessary to amend the legislation in force, and approve an updated financial and organizational scheme for the use of these funds. In the process of designing the financial scheme from the EU ETS revenues, it should be taken into account that the absorption of EU funds is a priority for Romania. Thus, the design of climate financing programs from ETS revenue should address other categories of stakeholders not currently covered by existing EU funds.

In order to maximize the environmental, social, and economic impact of possible sectoral climate investment programs, and based on international experience, the World Bank's expert team proposes to use the following criteria for prioritizing and selecting non-EU ETS sectoral programs to be financed with EU ETS auctioning revenue:

1. Cost efficiency of Emissions Reduction;
2. Leverage of public money to private finance;

3. Possibility for rapid development and scale up,
4. Lack of other financing mechanisms;
5. Support for job creation;

Based on these criteria, the report recommends supporting the following climate investment programs for the years 2016-2020:

- 1) Replacing household light bulbs, air conditioning units, individual heating systems, refrigerators, and washing machines with more performant ones;
- 2) Upgrading household buildings insulation;
- 3) Implementing local, small- and household-scale renewable energy production;
- 4) Forestry and biomass production, and land use improvements.

Additionally, the report recommends spending up to 5% of the EU ETS revenue available for climate action on management of the ETS scheme in Romania, as well as up to 5% on administration of the above described climate investment programs.

To address possible improvements for the use of funds from ETS revenues in the organizational scheme, the report proposes to use the following institutional arrangements of climate investment programs:

- Ministry of Public Finance (MPF) will continue to be Romania's auctioneer on European Energy Exchange (EEX). MPF will collect the revenues from the EU ETS auctioning and after taking 29% of revenues to state budget, it will transfer 71% of the revenues to the special "climate" account of the MEWF;
- Ministry of Environment, Waters and Forests (MEWF) will set up a Coordination Unit (CU) of the Climate Investment Fund inside the ministry. The CU will supervise the Climate Investment Fund;
- MEWF will set up Advisory Committee (AC), that will consist of representatives of the central authority for public finance (currently Ministry of Public Finance), central authority for economy (currently Ministry of Economy, Trade and Tourism), central authority for energy (currently Ministry of Energy, Small and Medium-Sized Enterprises, and Business Environment), central authority for agriculture (currently Ministry of Agriculture and Rural Development), central authority for regional development (currently Ministry of Regional Development and Public Administration) and other concerned ministries as well as representatives from private businesses, climate science and non-governmental organizations. It will provide input and guidance concerning strategic objectives for implementation of the climate programs that will be financed by CIF;

- MEWF will set up Climate Investment Fund. CIF will have overall responsibility for implementation of climate programs and selection of Implementing Agencies.
- Implementing Agency will have responsibility for implementation of particular climate program and will directly work with beneficiaries.

Based on the World Bank analysis, the report estimates that in the years 2016-2020, Romania will have EU ETS revenue available for climate investment programs in amount of about 1.278 billion Euros. To increase leverage of public money to private finance and based on experience of similar programs in other countries, the report recommends the following initial grant/subsidy levels (which could be increased up to 50% if there will be low interest to participate or government of Romania wants to assist low income families) and corresponding possible budgets for the climate investment programs:

- 1) Household building insulation: with a subsidy level of 35%, and total possible budget of about 750 million Euros, this program could attract up to 1.39 billion Euros of private money;
- 2) Replacement of household light bulbs, air conditioning units, individual heating systems, refrigerators, and washing machines: with a subsidy level of 30%, and possible budget of about 88 million Euros, this program could attract up to 205 million Euros of private money;
- 3) Developing small- and household-scale renewable energy production: with a subsidy level of 35%, and possible budget of about 330 million Euros, this program could attract up to 612 million Euros of private money;
- 4) Forestry, biomass production, and land use improvements: due to activities on public land only, this program will have subsidy level of 100%, and total possible budget of about 110 million Euros.

We believe that effective information campaign about expected financial benefits during lifetime of efficient appliances or family house insulation or renewable energy equipment will assist to overcome “lack of information/public awareness” barrier, while the provided subsidy will overcome the financial barrier – relatively high cost of efficient appliances or family house insulation or renewable energy equipment for average Romanian SME or household. The inclusion of energy audit’s or feasibility study’s cost into list of eligible subsidy expenses will also assist to overcome important information and financial barrier.

It is concluded that the proposed improvements on managing revenue from the auctioning of EU ETS allowances laid out in this report could be used by the Ministry of Environment, Waters and Forests, as a responsible body for climate policy, for internal discussions with other Romanian ministries and agencies to reach consensus on the next steps.

As the government aims to build the country into a climate resilient, low-carbon economy that has mainstreamed its climate policies and actions into smart, green, and inclusive growth by 2030, the efficient use of revenue from the auctioning of EU ETS allowances could be an effective tool to reach this goal in the sectors not covered by existing climate finance mechanisms and policy regulations.

The main objective of the report is to provide recommendations for an efficient implementation of the provisions of the EU ETS directives regarding the use of revenues from auctioning of EUAs. All the measures proposed in this report are contributing to the objectives set up under the Romanian National Climate Strategy 2016 – 2030 and National Action Plan 2016 – 2020.

INTRODUCTION

At the request of the Government of Romania (through its Ministry of Environment and Climate Change and Ministry of European Funds), a two-year Reimbursable Advisory Service (RAS) Program on climate change and low-carbon green growth was launched by the World Bank in July 2013. The RAS project focuses on operationalizing Romania's national climate change strategy and action plan, identifying and integrating climate-related actions in new operational programs, building a solid analytical base for impact assessments and climate-related decision making, and enhancing climate-friendly practices and monitoring systems.

Component D aims at supporting the Government institutions in implementing, monitoring, and evaluating climate change actions and sharing their experiences. One of the deliverables is to propose prioritization criteria for climate mitigation opportunities in Romania that could be financed from revenues obtained from the auctioning of EU Allowances in the period 2016 – 2020.

In this context, the present report provides an overview of climate policy and climate finance in EU and Romania and proposes non EU ETS sectors/programs to be supported from revenues from auctioning of EU ETS allowances and possible improvements in legal and institutional framework for implementation of the proposed climate programs. The report also describes possible use of flexibility mechanisms in non EU ETS sectors.

CHAPTER 1: THE CONTEXT OF CLIMATE FINANCE SET-UP IN NON-EU ETS SECTORS IN ROMANIA

1.1 Overview of climate policy in EU

Out of its total set of 4 legislative acts, the EU 2020 Climate Package includes two main pieces of legislation to reduce greenhouse gas (GHG) emissions:

1. The EU Emissions Trading Scheme Directive (EU ETS) that covers emissions from large installations in the power and industrial sectors, and
2. The Effort Sharing Decision (ESD) that sets emissions reductions targets for sectors not covered under the EU ETS. The non-ETS sectors account for nearly 60% of the EU's emissions and therefore the Effort Sharing Decision, governing these non-ETS greenhouse gas (GHG) emissions, is one of EU's central pieces of climate legislation.

Figure 1. Main elements of EU 2020 Climate Package

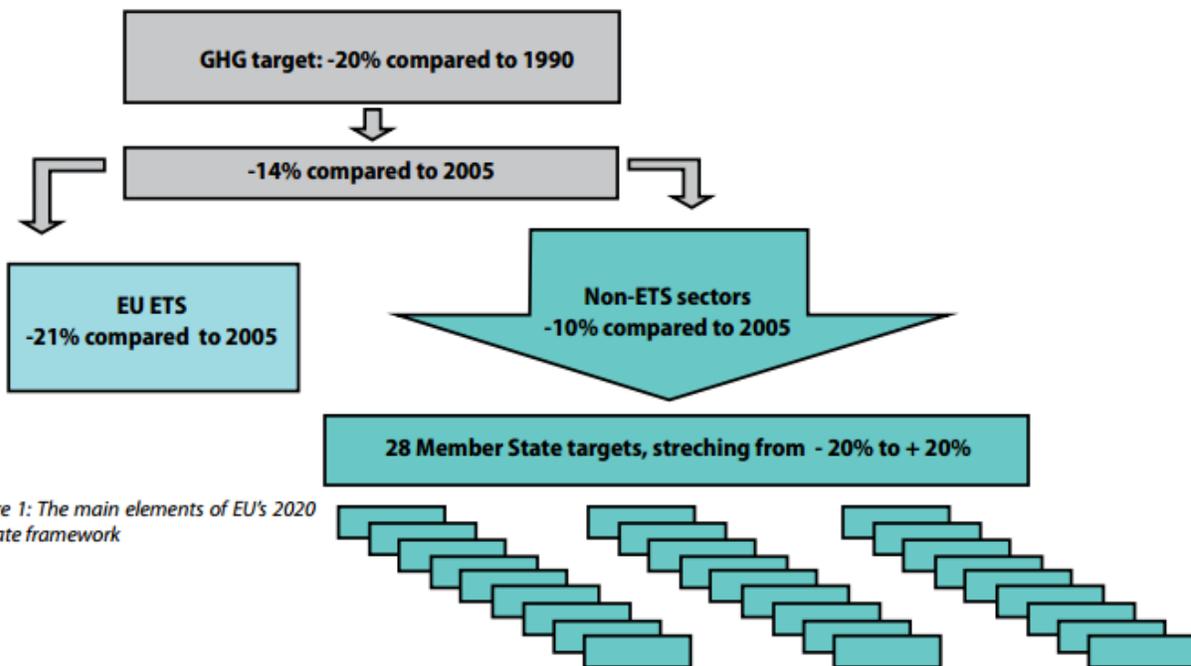


Figure 1: The main elements of EU's 2020 climate framework

Source: Carbonwatch, 2014

1.1.1. EU ETS

The EU's Emissions Trading System (ETS) covered in the phase I and II more than 10,000 energy-intensive facilities across the 27 EU Member countries, including oil refineries, power plants over 20 megawatts (MW) in capacity, coke ovens, and iron and steel plants, along with cement, glass, lime, brick, ceramics, and pulp and paper installations. These covered entities emit about 40%-45% of the EU's total greenhouse gas emissions, and almost two-thirds of them are combustion installations. The trading scheme does not cover either carbon dioxide (CO₂) emissions from the transportation sector (except aviation), which account for about 25% of the EU's total greenhouse gas emissions, or emissions of non-CO₂ greenhouse gases, which account for about 20% of the EU's total greenhouse gas emissions. The Phase I trading period ran between January 1, 2005, and December 31, 2007. The Phase II trading period began January 1, 2008, covering the period of the Kyoto Protocol 2008 - 2012, and a Phase III covers 2013 - 2020.

The EU ETS is one of the key climate policy instruments in the EU. It was introduced to help participating countries reach their emissions reduction targets under the Kyoto Protocol as well as the internal EU targets for 2020 and beyond, through cost-efficient emission reductions at point sources across the EU.

In Romania, the provisions of Directive 2003/87/EC (EU Trading Scheme) were implemented starting with 1st January 2007, the accession date to the European Union. Romania participated to EU ETS only for the last year of Phase I of the scheme (2007), the legislative and institutional framework for the ETS implementation being also established since 2006 when the technical assistance project "Implementation of Directive 2003/87/CE and NAP development" started.

In this way, the Romania's National Allocation Plan covering the last year of Phase I and the entire Phase II was developed in April 2006 and notified to the European Commission in December 2006, as one consolidated paper.

The Romanian NAP was prepared through a working group coordinated by the Ministry of Environment with the technical support of National Environmental Protection Agency, the Institute for Studies and Power Engineering, Ministry of Economy, Ministry of Administration and Interior, National Institute for Statistics and the National Commission for Forecast, and with the assistance from Ecofys (Germany) and Netherlands.

After rounds of consultation with the Romanian authorities regarding the principles and the amount of allowances allocated for each installation falling under the provisions of Directive 2003/87/EC, in October 2007 the Commission decided on NAP 2007 and 2008-2012 as follows:

- the total amount of allowances for 2007 to be 10% less than the national cap proposed by the Romanian authorities (74,343,356 allowances) and

- the total amount of allowances for 2008–2012 to be 20.7% less than the national cap proposed by the Romanian authorities (349,671,593 allowances).

The Commission's decisions were implemented by the Romanian Government through GD no. 60/2008 approving the National Allocation Plan for 2007 and 2008-2012 periods which foresees that:

- allocation of allowances is free of charge;
- New Entrants Reserve (NER) is established only for the second period of the scheme and not for 2007;
- project credits (ERUs and CERS) can be used up to 10% of the total quantity allocated to installation, both for 2007 and 2008 -2012;
- auction is not used as allocation methodology for 2007 and 2008–2012; the Government will auction only the allowances from NER unused at the end of 2012;
- Early Action Reserve for 2008–2012 was established at 4.48% from the total amount of allowances;
- a JI set-aside for JI projects for 2008–2012 (as requested by Decision 2006/780/EC) was established at 1.91% from the total amount of allowances;
- a cogeneration Reserve for 2008-2012 for CHP installations with overall efficiency higher than 65% was established at 0.95% from the total amount of allowances;
- in the second Phase of the scheme Romania will not auction allowances other than the excess from the New Entrants Reserve.

The following principles for the allocation of allowances were proposed by the Romanian authorities through NAP and approved by the European Commission:

- the total number of allowances allocated (national cap) was determined through “top-down” projections, based on historical achievements and the forecast of macro-economic and sector specific indicators proposed in the Governmental strategies and policies;
- allocation to installations was done in two steps: firstly to sectors and subsequently to each installation within the sectors;
- allocation at sector level (for: energy, refineries, production and processing of ferrous metals, cement, lime, glass, ceramics, pulp and paper) was done considering the “top-down” projections, based on historic emissions (2001-2004), projected growth of production during 2007-2012 and reduction of carbon intensity;
- allocation of allowances at installation level was done on the basis of the share of relevant emissions in the total relevant emissions of that sector;
- relevant emissions of an installation during the historical reference period 2001-2004 are determined as the average emissions of the two years with the highest emissions within this period.

Romania took into account the extended scope for the definition of “combustion installation” as it had been agreed in the Climate Change Committee on May 2006.

Taking into account that Romania took part to ETS only for the last year of Phase I of the scheme, the Romanian authorities decided to develop two separate procedures for issuing the GHG permits: one for 2007 and one for 2008-2012 period, in order to allow the operators to receive one permit covering 2007 and another permit for 2008–2012.

Upon this 244 ETS installations received the GHG permit for 2007 and 229 installations were permitted for the period 2008–2012.

Since the beginning of 2012 the EU ETS also covers emissions from aviation.

In 2013, the EU ETS entered its third trading period (2013–2020). It has a wider scope than the previous trading periods, as additional countries, gases and sectors have entered the scheme. The third trading period is governed by a new set of rules: the cap is set at EU level, with a linear reduction factor and a trans-sectorial factor, rather than national allocation plans (NAPs) drawn up by participating countries. Auctioning has become the default method for allocation, with about half of the allowances being auctioned; however, there remains a substantial share of free allocation until 2020.

The EU ETS Phase 3 no longer provides an individual cap for every Member State, but a single cap for the EU, Iceland, Liechtenstein and Norway. As of 2013, around 43 % (excluding NER 300) of the emission allowances have been auctioned, and this share is expected to increase over time.

Since 2009, a growing surplus of allowances and international credits has been available on the carbon market, leading to a fall of the carbon price. In 2013 the emission allowances surplus reached approximately 2.1 billion allowances - which was partly due to the economic crisis and has significantly weakened the carbon price. Furthermore, the structural surplus is expected to remain in the system up to and beyond 2020.

To address this imbalance, the Commission proposed to postpone ('back-load') the auctioning of 900 million allowances from the early years of Phase 3 of the EU ETS to the end of the trading period. The 'back-loading' was adopted by amending the Auctioning Regulation on 25 February 2014.

On 22 January 2014, the Commission furthermore adopted a legislative proposal to establish a market stability reserve. On May 2015 the member states permanent representatives endorsed the informal agreement reached between Council and European Parliament representatives on the decision concerning the establishment and operation of a market stability reserve (MSR).

The main features³ of the package are:

- a market stability reserve will be established in **2018** and will be operational from **1 January 2019**
- "backloaded" allowances (the 900 million allowances whose auctioning was postponed from the years 2014-2016 until 2019-2020) will be placed in the market reserve
- unallocated allowances will be transferred directly to the MSR in 2020 and their future usage is to be considered under the wider EU ETS review
- temporary exemption of the "10% solidarity component" of allowances from the scope of the MSR until the end of 2025
- the EU ETS review is to consider the possible use of a limited number of allowances before 2021 to supplement existing resources to promote CCS, renewables and low-carbon industrial innovation projects
- the EU ETS and MSR reviews to take into account carbon leakage and competitiveness aspects, as well employment and GDP related issues.

1.1.2. Guidance for use of revenue from auctioning of EU ETS allowances

EU ETS Directive 2009/29/EC, Article 10 states that: "Member States shall determine the use of revenues generated from the auctioning of allowances. At least 50 % of the revenues generated from the auctioning of allowances [...] should be used for one or more of the following: (a) to reduce greenhouse gas emissions, including by contributing to the Global Energy Efficiency and Renewable Energy Fund and to the Adaptation Fund [...], (b) to develop renewable energies [...](c) measures to avoid deforestation [...] (d) forestry sequestration in the Community; (e) the environmentally safe capture and geological storage of CO₂, in particular from solid fossil fuel power stations; (f) to encourage a shift to low-emission and public forms of transport; (g) to finance research and development in energy efficiency and clean technologies in the sectors covered by this Directive; (h) measures intended to increase energy efficiency and insulation or to provide financial support [...] (i) to cover administrative expenses of the management of the Community scheme."

It is up to each EU Member State to decide "in accordance with their respective constitutional and budgetary requirements" (EU council 2008) on the use of its EU ETS revenues.

This provision was transposed into Romanian legislation GD 204/2013, requiring in Article II (2) that the funds obtained as revenues from the EU ETS auctioning will be used for projects aiming the reduction of GHGs emissions, as follows:

³ <http://www.consilium.europa.eu/en/press/press-releases/2015/05/13-market-stability-reserve/>

- a) financing research and development as well as demonstration projects for reducing emissions and adapting to climate change, including participation in initiatives within the strategic plan for Energy Technology and the European Technology Platforms;
- b) development of clean technologies and development of other technologies contributing to the transition to a low-carbon economy and increase energy efficiency;
- c) forestry sequestration;
- d) carbon capture and storage in a safe environment, in particular from the power plants that produce energy from solid fossil fuel and from a range of sectors and sub-sectors, including in third countries;
- e) encouraging the shift to forms of public transport with low greenhouse gas emissions;
- f) financing research and development on energy efficiency and clean technologies in the sectors covered by this decision;
- g) measures intended to increase energy efficiency and the insulation or financial support to address social aspects in households with lower and middle incomes;
- h) covering administrative costs for managing the EU ETS.

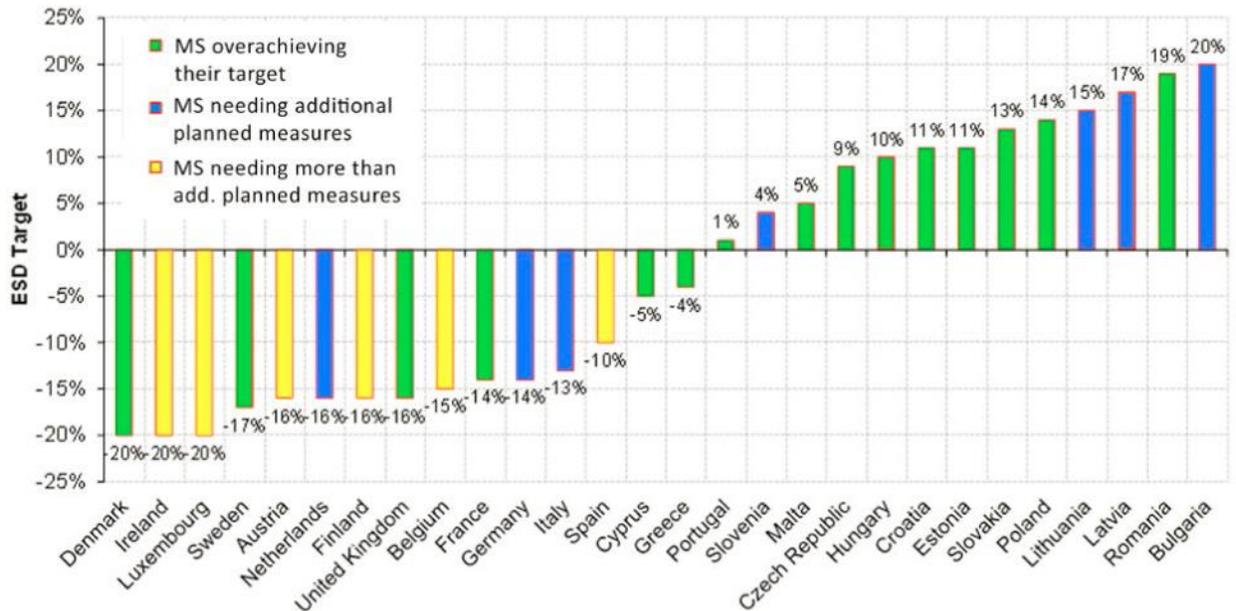
1.1.3. Effort Sharing Decision (ESD)

The Effort Sharing Decision (406/2009/EC) sets national emission targets for 2020, expressed as percentage changes from 2005 levels. It also lays down how the annual emission allocations (AEAs) for each year from 2013 to 2020 are to be calculated.

Of the total emissions under ESD, the top contributing sectors are transport (34% of ESD emissions); households (19%) and agriculture (18%).

By 2020, the national targets will collectively deliver a reduction of around 10% in total EU emissions from the sectors covered compared with 2005 levels. Together with a 21% cut in emissions covered by the EU ETS, this will accomplish the overall emission reduction goal of the climate and energy package, namely a 20% cut below 1990 levels by 2020.

Figure 2. National ESD targets for 2020.



In contrast to sectors in the EU ETS, which are regulated at EU level, it is the responsibility of Member States to define and implement national policies and measures to limit emissions from the sectors covered by the Effort Sharing Decision. Such policies could include: reducing transport needs, shift to public transportation, shift from fossil fuels transport, energy efficiency in buildings (thermal retrofitting), more efficient heating and cooling systems, renewable energy for heating and cooling, climate-friendly farming, conversion of livestock manure to biogas. At the same time, EU-wide measures also contribute to the reduction of the emissions under ESD (emission standards for new cars, energy performance of buildings, eco-design requirements for energy products, energy labelling to inform consumers, restrictions on fluorinated industrial gases (F-gases), etc.). The most important EU policies in achieving the global 10% target are the Energy Performance of Buildings Directive, the Directive on Landfill and Waste, and the Regulation on certain fluorinated greenhouse gases.

The current ESD target, 10% reduction below 2005 emission levels by 2020, can be easily met at no net cost to the European economy and even delivers net benefits to the economy through efficiency savings. At EU level, an overachievement of this target of up to 5% by 2020 is already expected. Overall, the majority of Member States are expected to reach their 2020 target under the Effort Sharing Decision.

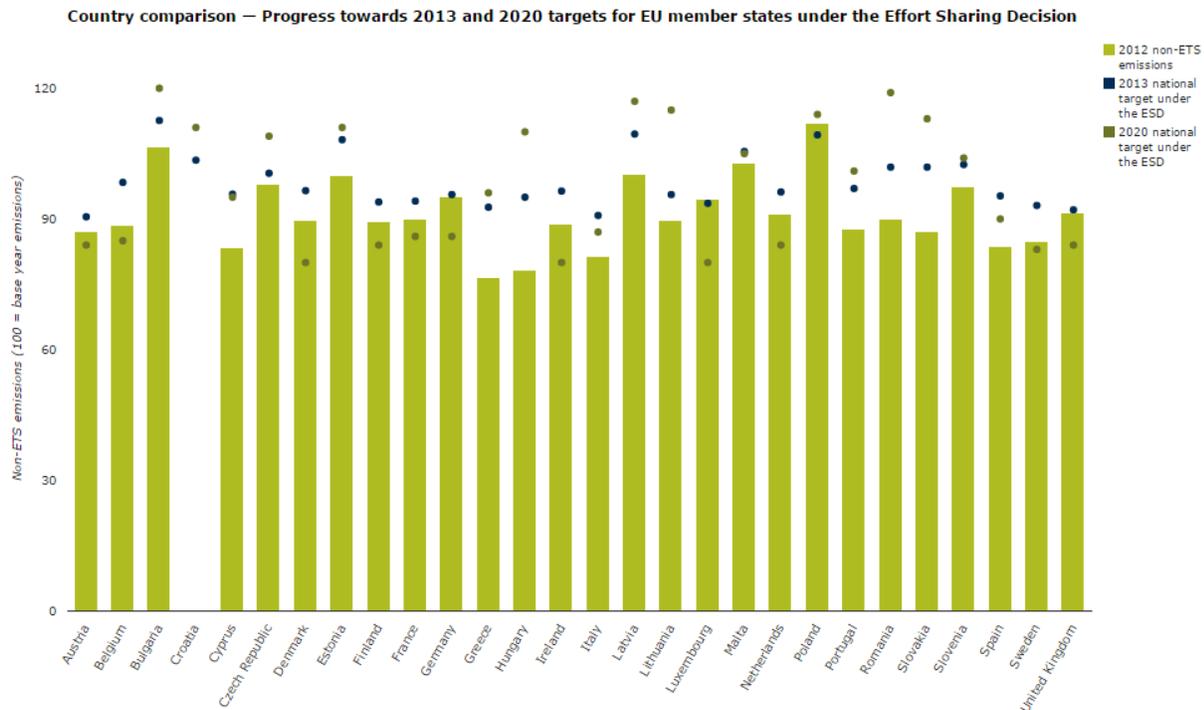
A thin majority of Member States is expected to overachieve their target by between 2% and 44% with already implemented measures⁴. The difference between already implemented and

⁴ European Environment Agency (EEA), based on Member States' draft submissions of national GHG inventories to UNFCCC (15/04/2013) and projections of non-ETS emissions available as of 15/04/2013.

additional planned measures is relatively small for most of them. This indicates that most Member States would already achieve their targets as a result of a business-as-usual trajectory and they therefore did not need to plan any additional measures.

Also, most of the overachievers are countries that are allowed to increase their emissions, including Romania. The ESD targets are therefore insufficient as they lock in a business-as-usual scenario.

Figure 3. Progress towards 2013 and 2020 targets for EU member states under the ESD.



Source: EEA, 2014. Romania is currently well under targets (2012: 90.1% of 2005 emissions, 2013 target: 101.9% compared to 2005, 2020 target: 119% compared to 2005).

1.1.4. 2030 Climate and Energy Policy Framework

On October 2014 the European Council adopted conclusions on a 2030 Climate and Energy Policy Framework (European Council 2014). As part of the conclusions the Council laid down some principles for an EU Effort Sharing Decision for the period 2021-2030 (ESD II).

Currently the new proposal for the ESD II is under public consultation at the EU level. The aim is to reduce emissions by 30% compared to 2005 and contribute to the overall EU emission reduction target of 40% compared to 1990. The ESD vision for after 2021 is similar to the current one: the overall EU target is to be shared among member states based on the solidarity principle (relative GDP per capita), with some adjustments. Thus, all member states would contribute to

the overall reduction with targets ranging from 0-40% compared to 2005. But the targets for the richer countries could be "relatively adjusted to reflect cost-effectiveness in a fair and balanced manner".

Also, flexibility instruments under the 2013-2020 ESD would be significantly enhanced so as to ensure cost-effectiveness of the collective EU effort and convergence of emissions per capita by 2030. The vision is to introduce a new flexibility in achieving targets for richer Member States with national reduction targets significantly above the EU average and their cost effective reduction potential. This would consist of a limited, one-off, reduction of the ETS allowances, to be decided before 2020. The same flexibility would be available to Member States that did not have free allocation for industrial installations in 2013.

Post-2020, more focus would be put on the transport sector.

The European Council in October 2014, invited the European Commission to further examine instruments and measures for a comprehensive and technology neutral approach for the promotion of emissions reduction and energy efficiency in transport, for electric transportation and for renewable energy sources in transport also after 2020. The European Council calls for a rapid adoption of the Directive laying down calculation methods and reporting requirements pursuant to Directive 98/70/EC of the European Parliament and of the Council relating to the quality of petrol and diesel fuels. It also recalls that under existing legislation a Member State can opt to include the transport sector within the framework of the ETS.

The EU leaders decided also that the emissions and removals related to land use, land use change and forestry (LULUCF) will be integrated into the 2030 climate framework, which so far have been treated outside the EU's 2020 climate framework. In contrast to the other sectors, the LULUCF sector is a net sink of carbon which means that the sector stores more carbon than it emits. Through the carbon storage potential of soils and forests, the LULUCF sectors could potentially generate credits in the order of 1.4 billion (or 1,400 Mt CO₂-eq) in the 2021-2030 period⁵. While it is essential that also the LULUCF sector contributes to greenhouse gas mitigation, several EU countries see the LULUCF sink as a way to displace efforts in other sectors such as agriculture. However allowing forestry offsets into the ESD would severely undermine the emission reductions needed in the ESD sectors and could lead to a 23% increase of EU's greenhouse gas emissions in the 2021-2030 period. The LULUCF emissions and removals are characterized by potentially large annual fluctuations, while there are uncertainties relating to data reliability. These characteristics make the sector unfit for any flexibility with the ESD that has an annual compliance cycle. Similarly, planting trees in order to displace efforts in sectors where major

⁵ Oeko-institut (2015) Enhanced flexibilities for the EU's 2030 Effort Sharing Decision. It is assumed that the current LULUCF accounting rules are projected to the 2021-2030 period, and that the LULUCF sector does not get an ambitious target.

emissions reductions are needed is risky because the forest sector is a large carbon sink where the permanence of stored carbon cannot be guaranteed, while the emissions from fossil fuels are permanent.

Using EU ETS auctioning revenues in order to reduce the GHG emissions from non-ETS sectors could be an opportunity to be explored to take actions for implementing measures for the 2030 target.

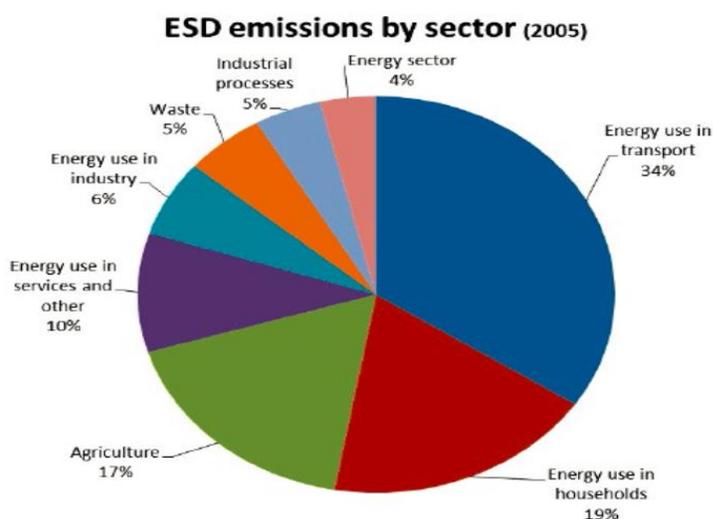
1.2 GHG emission status in non EU ETS sectors

1.2.1. GHG emissions in non EU ETS sectors in EU

In April 2009 Decision 406/2009/EC (Effort Sharing Decision) was adopted jointly by the European Parliament and Council that focuses on the effort of Member States to meet the Community's commitments to reduce GHG emissions by 2020 in sectors not covered by EU ETS. This decision aimed to establish the minimum contribution of Member States to reduce GHG emissions in the period 2013-2020.

The current ESD target, 10% reduction below 2005 emission levels by 2020, can be easily met at no net cost to the European economy and even delivers net benefits to the economy through efficiency savings. Overall, the majority of Member States are expected to reach their 2020 target under the Effort Sharing Decision.

Figure 4. EU wide GHG emissions in non-ETS sectors in 2005.

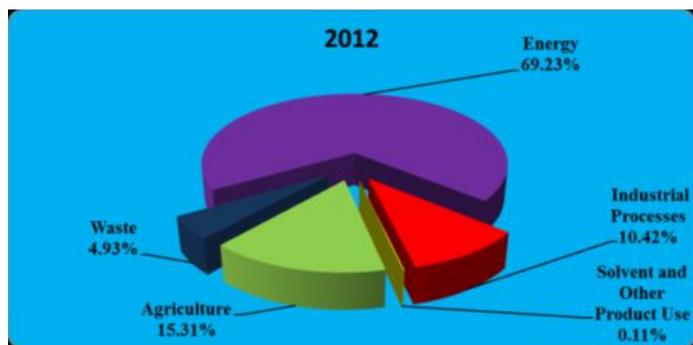


Source: [Carbonmarketwatch.org/wp-content/uploads/2014/05/ESD-Policy-Brief-Carbon-Market-Watch_final_WEB.pdf](https://carbonmarketwatch.org/wp-content/uploads/2014/05/ESD-Policy-Brief-Carbon-Market-Watch_final_WEB.pdf)

1.2.2. Overview of GHG emissions in Romania in 2012

According with the Romanian GHG Inventory, the total GHG Romanian emissions in 2012, excluding removals by sinks, amounted to 118,764.15 Gg CO₂ equivalents.

Figure 5. Sectoral distribution of GHG emissions in 2012 in Romania.



Source: Romanian GHG Inventory 2014

The energy sector represents the largest source of GHG emissions in Romania.

According to IPCC the following categories are included in this sector: Energy industries; Manufacturing Industries and Construction; Transport; Other sectors (commercial/institutional, residential, agriculture/ forestry/ fisheries); Other (stationary, mobile – according to IPCC); Fugitive Emissions from Fuels.

Compared to the other GHG emissions sectors (Industrial Processes, Agriculture, LULUCF, Waste), the Energy sector represents the largest source of anthropogenic GHG emissions in Romania.

In 2012, the Energy sector was responsible for about 69.23% of the total GHG emissions.

The GHG emissions resulted from the Energy sector decreased with 59.60 % compared with the base year 1989.

Industrial Processes contributes to total GHG emissions with 10.42%. A significant decrease of GHG emissions was registered in this sector (65.10% decreases in 2012 compared to the level in 1989) due to the decline or the closure of certain production activities.

Solvent and Other Product Use the trend of emissions resulted from this sector follows the general trend: emissions have decreased seriously after 1989, then the emissions were relatively stable from 1992 to 2002; after 2002, emissions started to increase, and due to the revitalization of the relevant economic activities (automobile manufacture, construction and buildings).

The GHG emissions level decreased in 2012 by 80.22% in comparison with the level recorded in 1989⁶.

Agriculture GHG emissions have also decreased. The GHG emissions in 2012 are 55.35% lower in comparison with the 1989 emissions due to: the decline of livestock; the decrease of rice cultivated area; the decrease of crop productions level; the decline of N synthetic fertilizer applied amounts.

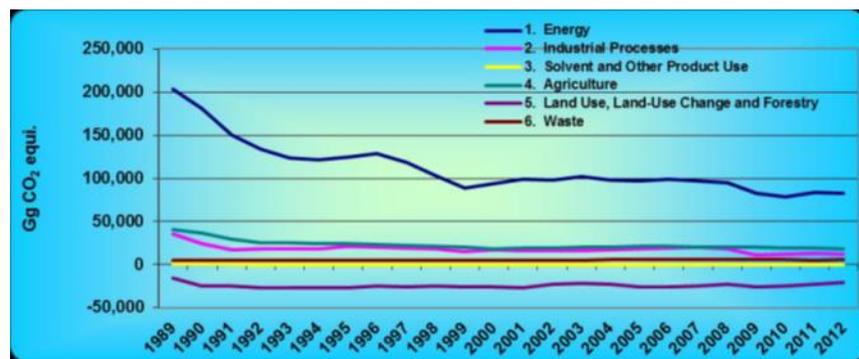
In 2012, 15.31 % of the total GHG emissions resulted from the agriculture sector.

LULUCF: The net GHG removals/emissions level is 34.35% higher in 2012 in comparison with the level in the base year. The Romanian land use sector acts as a net sink, at an average uptake of 20,544.21 Gg/year, being relatively stable over the last 22 years.

Waste sector emissions have increased in 2012 with 25.62% in comparison with the level in 1989. The contribution of the waste sector to the total GHG emissions in 2012 is 4.93%.

The Figure 6 below shows the GHG emissions trends by each sector. The GHG emissions are expressed in Gg CO₂ equivalent.

Figure 6. GHG emissions trends by sector in Romania in 1989-2012 years.



Source: MEWF - Romanian National Inventory for the year 2012

The emissions trend for the entire period is characterized by a continuous decrease, which is due to a number of factors:

- the decline of economic activities and energy consumption;
- the economy being in transition, some energy intensive industries reduced their activities, this being reflected in the GHG emissions reduction especially during 1989–1999 period;
- the decrease of the natural gas national reserves;
- increase of energy efficiency at the end consumer by changing the old technologies with new technologies, decreasing energy consumption in large cities due to drastic decline in thermal

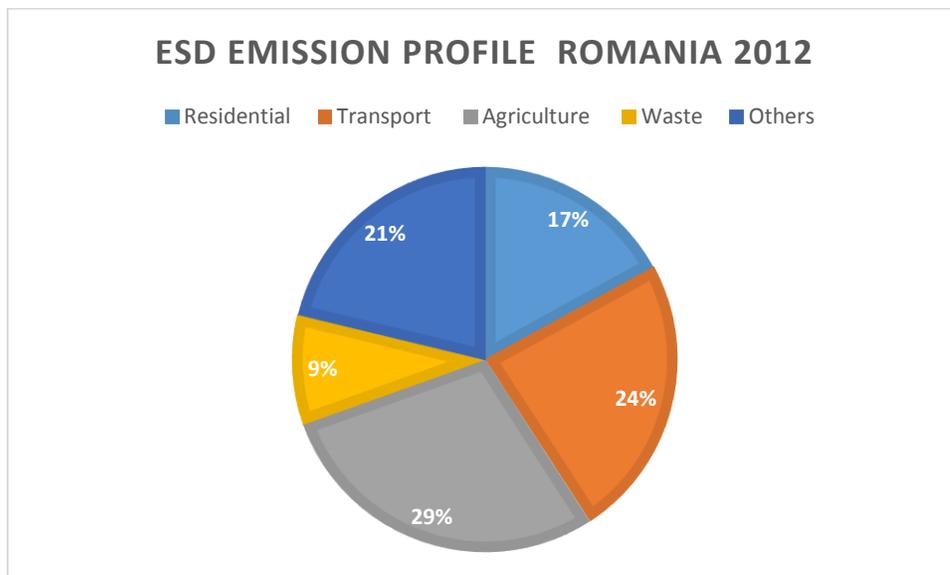
⁶ NIR 2014

energy demand from industrial consumers, but also because disconnection of households from the public centralized heat supply system, combined with the increasing trend of using individual apartment heating systems;

- in 2006, the available energy resources rised over the level in the previous year. The increase was based mainly on the increased import of energy carriers (+3.1%), offsetting the small decrease of the primary energy production due to diminished crude oil (-8.1%),
- the increase of natural gas resources in 2006 was driven by the significant increase in imports (+14.3 %);
- the decrease of crude oil and hydropower resources in 2011 was compensated by the increase of natural gas available for use;
- imports of natural gas have increased in 2011 over the level in the previous year, representing 35.7% of the total imports of energy products; meanwhile a decreased level was registred in case of imports of crude oil, which represent 47.1% of the total imports of energy products (Source – Romanian National Institute for Statistics);
- the decrease of resources of crude oil (-6,8%) and natural gas (-0,7%) in 2012.

1.2.3. GHG emissions in non EU ETS sectors in Romania in 2012

Figure 7. GHG emissions under the Effort Sharing Decision in Romania in 2012.



Source: Öko-Institut based on EEA 2014b

The emissions accounted on the non-ETS sector could be shared between the following sectors:

- Residential – 17.0%
- Transport – 23.8%
- Agriculture – 28.7 %

- Waste – 9.2%
- Others – 21.2%.

1.2.4. ESD implementation in Romania

The estimation of the share of the ETS/ESD sectors is a determining factor in drawing up the forecasts associated to GHG emissions, considering the legal requirements governing such sectors and the need to observe the annual targets established for the ESD sectors, in accordance with the provisions of Decision no. 406/2009/EC. The increase by 19% of GHG emissions compared to the emissions afferent to 2005 is stipulated for the ESD sectors in Romania, between 2013 and 2020. The annual levels of emissions allocated to Romania for each year between 2013 and 2020, calculated by applying the values of the global warming potential defined in the second, respectively the fourth assessment report drawn up by the IPCC, established in annexes I and II of Decision no. 162/2013/EU, are shown in the following table:

Table 1. Annual allocated emission level

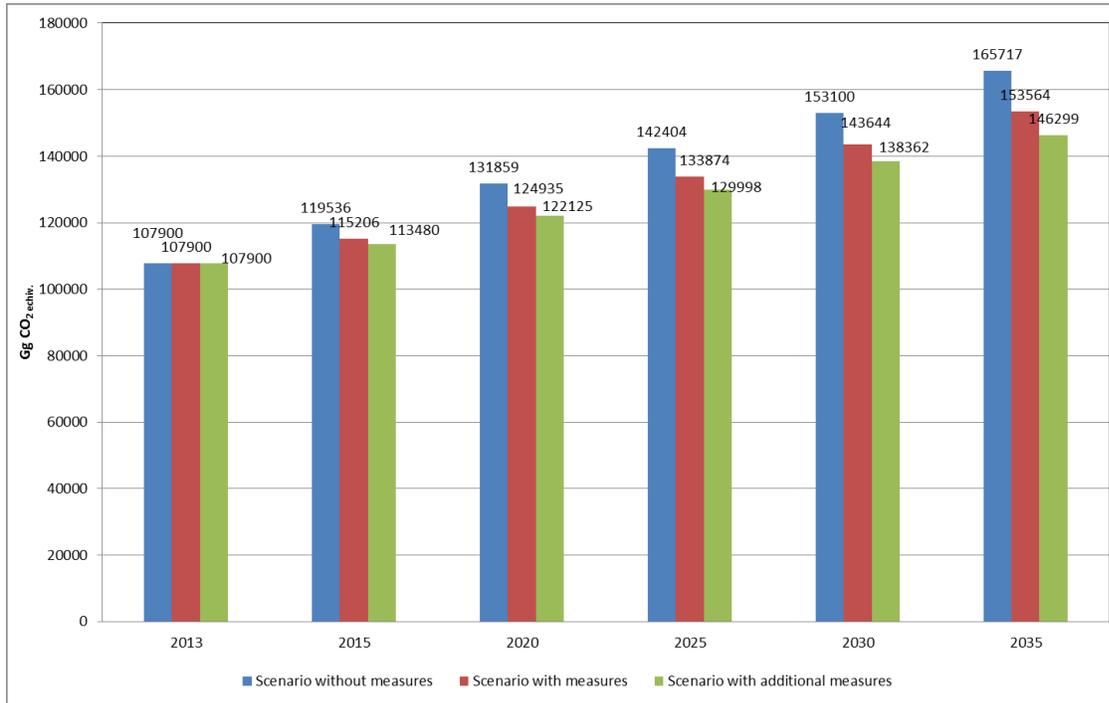
Global warming potential in:	Annual allocated emission level [t CO₂]							
	2013	2014	2015	2016	2017	2018	2019	2020
The 2nd IPCC report	79,108,341	80,681,687	82,255,034	83,828,380	85,401,727	86,975,074	88,548,420	90,121,767
The 4th IPCC report	83,080,513	84,765,858	86,451,202	88,136,547	89,821,891	91,507,236	93,192,581	94,877,925

The activities carried out to determine the share of the ETS sectors of the total GHG emissions were as follows:

- the analysis and selection of the nationally available data to estimate the share of the ETS sectors;
- the estimation of the ETS sector share of the total GHG emissions.

For estimating the trend of GHG in Romania, three scenarios have been developed: no measure, with measures and with additional measures.

Figure 8. Projected levels of the total GHG emissions in the three analysed scenarios for 2013–2035 period.



Source: Romania Report on GHG emissions 2015.

1.3 Existing financing programs in non EU ETS sectors

1.3.1. Additional measures in some EU countries

Most EU Member States are expected to overachieve the ESD targets even without additional measures. However, seven EU countries need to implement additional policies or use flexibility mechanisms (Bulgaria, Germany, Italy, Latvia, Lithuania, Netherlands, Slovenia) and will focus mostly on energy efficiency in buildings. Six other countries (Austria, Belgium, Finland, Ireland, Luxembourg and Spain) need to implement further policies and measures (not yet planned) or use offsets or purchase AEs.

Overall, the European Commission proposed country-specific recommendations to 16 Member States⁷. Ideally, countries should promote fiscal frameworks to internalize environmental costs in prices, e.g. by the introduction of a carbon price in non-ETS sectors. Other recommendations include:

⁷ http://carbonmarketwatch.org/wp-content/uploads/2014/05/Report-How-Member-States-are-doing-implemeting-the-ESD-Carbon-Market-Watch_WEB1.pdf;
http://ec.europa.eu/europe2020/pdf/themes/16_energy_and_ghg.pdf

- Use of the revenues from auctioning of EU ETS allowances;
- Energy efficiency policies, particularly for buildings;
- Investment in green technologies, renewable energy sources and energy infrastructure;
- Reduction of emissions from the transport sector;
- Shifting the tax burden away from labour to environmental taxation (which would also enhance competitiveness);
- Removing environmentally harmful subsidies.

The seven countries which are expected to underachieve their ESD targets have proposed a list of measures. Most measures consist of policies that generate revenues to the budget: such as fuel taxation or reduction of subsidies in sectors with high emissions, traffic taxation, environmental taxes. Implementation of these revenue-generating measures would allow reduction of other taxes or resources for support for other environmental measures. A few proposed measures require public resources, particularly subsidies for energy efficiency in buildings or replacement of vehicles. Several countries (Ireland, Belgium, Luxembourg) might not be able to implement the proposed measures because of lack of political will, e.g. in Luxembourg the Government is reluctant to introduce fuel taxation so as not to discourage tourism or Finland to reduce energy subsidies in certain energy-intensive industries. Another issue is the lack of institutional coordination between federal and regional authorities, e.g. in Belgium. If they cannot reach the ESD targets, these countries might instead take advantage of the trading flexibilities in ESD.

Table 2. List of additional policies and financing in six EU countries to comply with ESD targets

Country	Expected gap from target	Measures
Austria	0.50%	Law limits emissions for each of the non-ETS sectors 2013–2020 and defines a list of measures to reach compliance with ESD target: energy efficiency, energy efficiency in buildings, share of RES, mobility, integrating climate in land use planning, economic incentives for climate protection. The measures would reduce Austria's need to purchase offsets or AEs
Belgium	11%	Regional economic incentives for energy efficiency in buildings, heat pumps, solar panels. Management of traffic congestions / implementation of new traffic tax system. Improvement of division of responsibilities and targets between central and regional governments is essential
Finland	1-6%	Policy: energy efficiency in industry (forestry, metals, chemicals); in buildings and road transport, increased share of renewables,

		reduction of oil consumption by 20% by 2020 - road transport, heating; waste sector; raise in energy tax on peat; renewable energy in heating; phasing out subsidies in sectors with environment issues
Ireland	11-18%	Sectors with major emissions: transport, agriculture. Climate Action and Low Carbon Development Bill: 2050 low-carbon roadmaps for Govt departments
Luxembourg	18-23%	Sector with major emissions: transport. Proposed measures: increase of fuel taxes; Climate and Energy Fund: purchase of offsets and allowances of 12 million tons of CO ₂ -eq for 2013-2020
Spain	6-9%	Climate Project Programme: national offset projects and purchase of emissions reductions from those projects. Replacement of vehicle fleet; new environmental tax system; National Framework Waste Plan

Source: Carbonwatch

1.3.2. Use of EU ETS revenues in EU

According to the consolidated Directive 2009/29/EC from 2013 onwards, Member States shall auction all allowances which are not allocated free of charge in accordance with Article 10a and 10c.

The total quantity of allowances to be auctioned by each Member State shall be composed as follows:

- (a) 88 % of the total quantity of allowances to be auctioned being distributed amongst Member States in shares that are identical to the share of verified emissions under the Community scheme for 2005 or the average of the period from 2005 to 2007, whichever one is the highest, of the Member State concerned;
- (b) 10 % of the total quantity of allowances to be auctioned being distributed amongst certain Member States for the purpose of solidarity and growth within the Community, thereby increasing the amount of allowances that those Member States auction under point (a) by the percentages specified in Annex IIa;
- (c) 2 % of the total quantity of allowances to be auctioned being distributed amongst Member States the greenhouse gas emissions of which were, in 2005, at least 20 % below their emissions in the base year applicable to them under the Kyoto Protocol.

If necessary, the percentages referred to in points (b) and (c) shall be adapted in a proportional manner to ensure that the distribution is 10 % and 2 % respectively.

Member States shall determine the use of revenues generated from the auctioning of allowances. At least 50 % of the revenues generated from the auctioning of allowances should be used for one or more of the following:

(a) to reduce greenhouse gas emissions, including by contributing to the Global Energy Efficiency and Renewable Energy Fund and to the Adaptation Fund as made operational by the Poznan Conference on Climate Change (COP 14 and COP/MOP 4), to adapt to the impacts of climate change and to fund research and development as well as demonstration projects for reducing emissions and for adaptation to climate change, including participation in initiatives within the framework of the European Strategic Energy Technology Plan and the European Technology Platforms;

(b) to develop renewable energies to meet the commitment of the Community to using 20 % renewable energies by 2020, as well as to develop other technologies contributing to the transition to a safe and sustainable low-carbon economy and to help meet the commitment of the Community to increase energy efficiency by 20 % by 2020;

(c) measures to avoid deforestation and increase afforestation and reforestation in developing countries that have ratified the international agreement on climate change, to transfer technologies and to facilitate adaptation to the adverse effects of climate change in these countries;

(d) forestry sequestration in the Community;

(e) the environmentally safe capture and geological storage of CO₂, in particular from solid fossil fuel power stations and a range of industrial sectors and subsectors, including in third countries;

(f) to encourage a shift to low-emission and public forms of transport;

(g) to finance research and development in energy efficiency and clean technologies in the sectors covered by this Directive;

(h) measures intended to increase energy efficiency and insulation or to provide financial support in order to address social aspects in lower and middle income households;

(i) to cover administrative expenses of the management of the Community scheme.

EU is currently discussing how it should revise its Emissions Trading Scheme (ETS) for the post 2020 period. In July 2015, the European Commission released its proposal on the revision. Under the current legislative proposal, the compensation of indirect costs related to the carbon leakage exposure is proposed to be allocated from the auctioning revenues.

Under the Monitoring Mechanism Regulation, Member States were requested to report for the first time by 31 July 2014 on the amounts and use of the revenues generated by the auctioning of ETS allowances in the year 2013.

The total ETS auctioning revenues for the EU were €3.6 billion⁸. The EU ETS Directive provides that at least 50% of auctioning revenues or the equivalent in financial value of these revenues should be used by Member States for climate and energy related purposes. All Member States have reported to have used or to plan to use 50 % or more of these revenues or the equivalent in financial value of these revenues for climate and energy related purposes (87 % on average representing approximately €3 billion), largely to support domestic investments in climate and energy.

Only some Member States reported information on the split of the use of revenues per type of actions. For instance, France, the Czech Republic and Lithuania use all their auctioning revenues in projects to improve the energy efficiency of buildings. Bulgaria, Portugal and Spain use most of their revenues to develop renewable energy. Poland uses most of its revenues that are dedicated to climate change in support of energy efficiency and renewable energy. In Germany, all auctioning revenues are used for climate and energy related purposes, with most of those revenue directed to a specific climate and energy fund, which supports a wide range of projects. Finland channels its auctioning revenues to Official Development Assistance activities, including climate finance. The UK uses around 15 % of auctioning revenues to provide financial assistance to low income households in relation to energy expenses.

Countries like UK, Portugal, and Ireland are using part of the revenues for covering of administrative expenses of the management of the ETS scheme or other general and administrative expenses of the Climate Change Special Programme like Lithuania.

Table 3 below is based on MMR Article 17 questionnaire: MSs Reporting on the use of auctioning revenues pursuant to Article 24 from the Commission Regulation N°525/2013⁹ – for the year 2013 (the latest data found in open sources).

⁸ http://ec.europa.eu/clima/policies/strategies/progress/docs/com_2014_689_en.pdf pg 18

⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:165:0013:0040:en:PDF>

Table 3. Use of revenue from auctioning of EU ETS allowances by EU member states in 2013

Nr	Country	Total auctioning revenues (M€) per year (2013) ¹⁰	Use of EU ETS revenues for climate action? (national / international)	Establishment of new fund? (bundling of expenditures)	Priorities	Description
1	UK	485			Fuel Poverty	Measures to alleviate fuel poverty including the Warm Front scheme
					Green Deal	Funding for the Green Deal scheme for making energy-saving improvements
					Renewable Heat Incentive	The RHI pays participants of the scheme that generate and use renewable energy to heat their buildings. By increasing the generation of heat from renewable energy sources (instead of fossil fuels), the RHI helps the UK reduce greenhouse gas emissions and meet targets for reducing the effects of climate change.
					Renewable Heat Premium Programme	The RHPP scheme made one-off payments to householders to help

¹⁰ SWD(2014) 336 final

						<p>them buy renewable heating technologies – solar thermal panels, heat pumps and biomass boilers. The scheme ran from August 2011 until 31 March 2014</p>
					Climate Energy Science and Analysis	Funding for climate change research, climate science and energy analysis and research
					Energy Innovation and Innovation Programme Delivery	The innovation programme is focused on de-risking and reducing the cost of new technologies that are vital to support the development of low carbon innovation and industry in the UK
					ETS	Emissions Trading Scheme administration costs
					Warm Homes Discount	Warm Homes Discount scheme development and running costs
2.	Czech Republic	81	National/International: “at least” 50% is earmarked (goes to energy efficiency in buildings, international climate finance and	Existing State Environmental Fund will be used for financing energy efficiency in buildings and international climate finance.	Green Savings Programme	Green Savings Programme is a financial support scheme designed to promote energy saving measures carried out by households, focused towards refurbishment of private dwellings (insulation),

			energy efficiency in district heating and industry)			construction of new dwellings in low-energy or passive standard and utilization of low-emission or renewable sources of heating in households
3	Hungary	35	National Climate Law decided that 50 % of auction revenues should be used for climate change-related spending	2013 Budget Law contains a Green Economy Development System (with 17 million EUR) – which is presumably coming from auction revenues	Green Economy Financial Scheme	Financial assistance for houses insulation of the people with low and medium income
4	Poland	244	National: Possibly 50 % of the revenues, or the equivalent, will be spent on climate protection and adaptation issues	Ministry of Economy supports the idea of allocating EU ETS revenues to a special fund (still under discussion)	Renewable energy	Program for use of renewable energy – part 3 - for installation of solar panels
					Green Investment Scheme	GIS -part 1 – energy efficiency in public buildings
						Improving energy efficiency for thermal energy sources

6	Germany	790		ETS revenues go to the Special Energy and Climate Fund.	EKFund	Energy efficiency Energy from renewable resources Energy conservation Energy efficiency in buildings Climate Change Actions Developing electric mobility
7	Ireland	42		No		Energy efficiency in buildings Afforestation Expenses for the implementation of the directive
8	France	219	National: “up to 590 million EUR” (at the time, expected to be a 100% of revenue) for the National Housing Agency retrofitting of social housing	No	Energy efficiency in buildings	Energy efficiency for fuel poverty households.

Source: WB analysis from the information on the [dr.eionet.europa.eu](http://rod.eionet.europa.eu) reporting on MMR art 17 (<http://rod.eionet.europa.eu/obligations/698/deliveries>)

1.3.3. Multiannual Financial Framework

Sectoral Operational Programs financed by EU

The 2014-2020 Multi-annual Financial Framework (MFF) adopted by the European Council in February 2013 requires increasing climate-related expenditures to at least 20% of the EU spending.

Those requirements were transposed in the Romanian Operational Programs objectives in order to comply with the EU legislation on climate change and to improve absorption rate of EU money. World Bank under the Component B of the OPERA CLIMA program developed the Identification and Integration of climate-related investment actions in the 2014 – 2020 Operational Programs for EU Funds¹¹.

For the period 2014-2020, the Government will undertake several measures included in the sectoral Operational Programs (OPs), to be financed by EU with national co-financing and has adopted several state aid schemes and support mechanisms in various sectors with the goal to reduce emissions of GHG. The measures cover most of the ETS and non-ETS sectors, though not all have clear, explicit targets on the reduction of GHG emissions, but some are focused towards climate or mobility objectives that have as side effect also the reduction of emissions of GHG (e.g., energy efficiency, modal shift from transport modes with higher emissions to lower emissions, increase of share of renewables etc.).

The reduction of GHG emissions by ETS installations from the energy system is already tackled in a special application approved by the European Commission during 2011,, through the National Investment Plan, funded through the mechanism of the so-called "10(c) derogation", with the scope of supporting the investments for the modernization of the energy sector. Below a summary of the major allocations for GHG-reducing projects in sectoral OPs. Based on these already existing measures, we recommend focusing the revenues from ETS auctions to the gaps (missing priorities or missing beneficiaries that are not covered in the existing policies).

Residential sector and energy efficiency:

The Operational Program Large Infrastructure (OPLI) is financing measure for improving energy efficiency, like:

- "smart grids" - developing and implementing smart electricity distribution at low and medium voltage: Large Infrastructure OP, aims to reduce average power consumption of households (from 1.35 to 1.2 MWh/household/year). Total amount: 40.5 mil. EUR (EU contribution - 32.4

¹¹ <http://www.worldbank.org/en/country/romania/brief/romania-climate-change-and-low-carbon-green-growth-program>

mil.), the program covers only 10% of needs and must be scaled up to 80% by 2018, as EU commitment.

- Increasing energy efficiency of district heating networks in Bucharest and 7 cities: Large Infrastructure OP, would contribute to the reduction of losses from district heating grids - transmission and distribution. The target to be reached at national level is the reduction of heat losses from 26.76% to 15% in 2023. Total amount: 293.5 mil EUR (of which EU contribution - 234.5 mil). The program covers about 40-50% of the needs to reach national target.

- energy efficiency for industrial consumers: Large Infrastructure OP, to install metering for energy consumption on industrial platforms, 12.5 mil EUR (9.99 mil. EU financing). The global target is to improve energy efficiency from 183 ktoe/1,000 EUR to 121.5. The total allocation in OPLI covers 10% of needs.

- possible "waste-to-energy" projects could be financed for Bucharest under LIOP Axis 3, were a project for the integrated management of waste in Bucharest is eligible for financing.

And the Regional Program is focusing on energy efficiency in urban area:

- public and residential buildings and public lighting: thermal insulation of households (blocks), improved efficiency in heating including the modernization of block/block entrance boilers, renewable heating solutions; and public lighting, including replacement of bulbs, extension of existing public lighting systems, public lighting with renewable energy sources and local strategies: Regional OP, 1.187 mil EUR. The measure would contribute to the reduction of primary energy consumption in public buildings (from 0.19 Mtoe/year to 0.12), in the residential sector (from 0.96 to 0.47) and energy savings in public lighting from 669 to 446 GWh/year. The annual reduction of GHG would be 228,742 tons CO₂ equivalent.

Transport:

The Regional Operational Program and the Large Infrastructure Operational Program are supporting measures that enhance energy efficiency or reduce GHG emissions in public transport, such as:

- construction of railways infrastructure: the Large Infrastructure OP supports construction of railways (1.4 bn EUR, of which EU funding 1 bn. EUR), and investments to improve sustainability and quality of rail transport (392 mil. EUR, of which EU funding 276 mil. EUR). Both measures are intended to improve mobility, but also to limit the modal shift from rail to roads, which would have an effect on GHG emission reduction, though not quantified.

- Development of the metro system in Bucharest: Large Infrastructure OP (726 mil. EUR, of which 512 mil. EUR EU financing). The measure contributes to reducing GHG emissions in Bucharest public transport (not quantified). Projects for the development of the metro system such as those financed so far by ad hoc amendments of OUG 115 would be eligible for this source of financing, while in addition allowing proper prioritization and monitoring of actual emission reductions.

- investments to support the urban mobility plans: Regional OP, 1.187 mil. EUR, investments consist of development of public transport, introduction of electric cars and infrastructure for sustainable urban transport. The global target is to cap CO₂ emissions to 17 MtCO₂e.
- investments in urban transport to support urban mobility plans and transport - infrastructure, reduction of CO₂ emissions, accessibility to public transport, replacement of existing fleet, dedicated lanes, e-ticketing, development for urban mobility plans for other cities. For this financing source would be eligible projects to replace public transport fleet such as those covered so far by ad hoc amendments of OUG 115, while in addition allowing proper prioritization and monitoring of the reduction of emissions Regional OP, 1.126 mil. EUR.
- Apart from EU funding, as a national program supported from the budget, "Rabla" program is administered by the Administration of Environment Fund and supports the replacement of old vehicles. World Bank estimates that in 2016-2023 a budget of 164 mil. EUR would be required for the program in order to reach a GHG reduction of 0.241 MtCO₂e¹².

Waste: The Operational Program Large Infrastructure¹³ is assuring:

- investment in the waste sector to meet the requirements of the Union's environmental acquis: Large Infrastructure OP 374 mil. EUR (299 mil. EU financing). The measure supports development of modern landfills and has an indirect effect on emissions of GHG, not quantified.

Agriculture and Forestry:

The National Rural Development Program for 2014-2020 support the following measures for climate mitigation:

- raising awareness of the importance of climate change;
- promoting knowledge transfer and information for sustainable resource use that can contribute towards climate change mitigation by farmers and other rural stakeholders;
- investments in modern facilities and equipment for the storage and spreading of livestock manure;
- investments in installations for production and use of on-farm renewable energy sources, including energy efficiency;
- production and use of energy from renewable resources within agri-food processing units and energy efficiency;
- investments in production of fuels from bio-mass and green energy;
- afforestation of agricultural and non-agricultural land, thus promoting the increase of carbon sequestration;

¹² Transport Sector Rapid Assessment, Climate Change and Low Carbon Green Growth Program, Component C, Transport Mitigation Report, Romania, 2015

¹³ Programul Operational Infrastructura Mare, final version approved by the EC, available at http://www.fonduri-ue.ro/res/filepicker_users/cd25a597fd-62/2014-2020/po/poim/VO.POIM.aprobat.zip

- conversion to and/or maintenance of organic farming that is generally beneficial for reduction of greenhouse gas emissions by reducing inputs (such as synthetic fertilizers and pesticides) and reducing nitrous oxides and methane emissions.

All those funds should not overlap and should complement each other for covering as many sectors and stakeholders as possible, or for attracting more money.

In those circumstances for designing the financing scheme from the ETS revenues, it should be taken into consideration that absorption of EU funds is a priority and before spending the EU allocation for a specific priority, no other funds should be allocated, excepting the case when is addressing other categories of stakeholders not covered by the EU funds.

1.3.4. New reserve of 2% of the EU ETS allowances

In October 2014 the European Council also decided to introduce a new reserve of 2% of the EU ETS¹⁴ allowances that will be set aside to address particularly high additional investment needs in low income Member States (GDP per capita 1 below 60% of the EU average). It will have the following characteristics:

- the proceeds from the reserve will be used to improve energy efficiency and to modernize the energy systems of these Member States, so as to provide their citizens with cleaner, secure and affordable energy;
- the use of the funds will be fully transparent;
- allowances from the reserve will be auctioned according to the same principles and modalities as for other allowances;
- the reserve will serve to establish a fund which will be managed by the beneficiary Member States, with the involvement of the EIB in the selection of projects. Simplified arrangements for small-scale projects will be ensured. Until 31 December 2030 the distribution of funds will be based on the combination of a 50% share of verified emissions and a 50% share of GDP criteria, but the basis on which projects are selected will be reviewed by the end of 2024.

1.4 Existing legal and institutional framework for use of revenues from auctioning of EU ETS allowances

1.4.1. Legal framework on EU level

Changes made by the ETS 2009/29/EC Directive amending its Directive 2003/87/EC included provisions regarding the auctioning of allowances. It also sets out the basis upon which allowances were to be distributed between Member States. A total of 88 per cent of allowances

¹⁴ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/145356.pdf

were distributed according to Member States' share in verified emissions under the EU ETS in 2005 or the average for the period from 2005-2007 (whichever was highest).

The remaining 12 per cent was distributed on a different basis with 10 per cent distributed among certain Member States for the purpose of 'solidarity and growth' within the Community, thus increasing the number of allowances of certain Member States by a percentage specified in Annex IIa of the Directive.

Two per cent of allowances were distributed in recognition of 'early effort' to achieve a reduction in greenhouse gas emissions. These were allocated to the Member States that were, in 2005, at least 20 percent below their emissions in the base year applicable to them under the Kyoto Protocol.

While Member States determine the use of revenues generated from the auctioning of both sets of allowances, at least 50 per cent should be spent on one or more of a menu of nine activities relating to the mitigation of, as well as the adaptation to, climate change.

1.4.2. Legal and institutional framework in Romania

The legislation that is setting up the institutional framework in order to use ETS revenues is the Governmental Emergency Ordinance (GEO) 115 / 21.12.2011 as subsequently amended.

According to this legislation the Ministry of Public Finance was designated the auctioneer for Romania on the European common auction platform European Energy Exchange (EEX) and it is acting consequently on the common action platform and will auction the allowances for greenhouse gas emissions, both those relating to the year 2012 and the period starting with 2013.

The competent authorities responsible for applying Regulation (EU) no. 1031/2010 on the timing, administration and other aspects of auctioning of emission allowances greenhouse gas emissions under Directive 2009/29/ EC are: Ministry of Public Finance (MFP), Ministry of Environment, Waters and Forests (MEWF), National Authority for Regulating and Monitoring Public Procurement (ANRMAP), National Regulatory Authority for Energy (ANRE), Financial Supervisory Authority (ASF) and the National Office Prevention and Control of Money Laundering.

According to Article 3 (1) Pursuant to art. 22 para. (1) of the EC Regulation, the Ministry of Public Finance is designated as auctioneer authority until the establishment / designation of a national authority on climate change at the national level to ensure implementation of the greenhouse gases emissions trading scheme.

The ETS auctioning revenues are distributed according to art. 10 and art. 11 of the GEO 115/2011. Article 10 provides that the revenues obtained from the auctioning of the stationary sector allowances (the bulk of the proceeds), are distributed as follows:

- a) 29% of the gross amount is transferred to the state budget;
- b) 71% will be used to finance projects submitted by beneficiary ministries to be approved by Governmental Decision by the MEWF and MPF after they were analyzed and selected by the Environmental Fund Administration. The project should be in line with the purposes listed in the EU ETS Directive 2003/87/EC, article 10 paragraph 3 and in compliance with specific state aid legislation.

The GEO no 115/2011 provisions mention that beneficiary ministries prepare projects, and submit the projects for assessment and selection at the Environmental Fund Administration (EFA). Based on this assessments, Ministry of Public Finance and Ministry of Environment, Waters and Forests should initiate a Governmental Decision to finance the projects selected by the Environmental Fund Administration.

Article 11 provides that:

The revenues obtained from the auctioning of the aviation sector allowances, in accordance with Government Decision no. 780/2006 will be directed as follows (the amounts are negligible):

- a) 70% of the gross amount is transferred to the Ministry of Transport;
- b) 30% of the gross amount is transferred to the Ministry of Environment, Waters and Forests.

The Ministry of Transport and the Ministry of Environment, Waters and Forests are using those amounts to finance projects aimed at reducing greenhouse gases emissions. To use these funds, Ministry of Transport and Ministry of Environment, Waters and Forests should initiate Governmental decision for the GHG emissions reduction projects, according to the provisions of the GEO no. 115/2011.

Financial allocations from ETS auctioning revenues for the GHG emissions reduction projects must comply with EU's state aid rules. This also means that proceeds from ETS auctioning revenues cannot be used as co-financing for EU funds.

1.4.3. Use of revenues from auctioning of EU ETS allowances in Romania

While the original version of the GEO no. 115/2011 issued in 2011 specifies that projects should be assessed and selected by the Environmental Administration Fund, in practice, the proceeds until 2015 have been approved for specific projects, by directly amending the provisions of the GEO no. 115/2011 and derogating from the original rule. In 2013-2014, according to MEWF, the total amount collected from ETS auctioning is 260 mil. EUR.

Until now, there is no clear, effective procedure for the administration and share of ETS auctioning revenues and no selection and prioritization criteria and guidance at the

Environmental Administration Fund. Until presently, 139 mil. EUR were allocated ad hoc by derogation on several projects:

- investments in the Bucharest subway (Drumul Taberei - Universitate line) - 104 mil. RON (24 mil. EUR). Beneficiary: Ministry of Transport
- purchase of school buses - 76 mil. RON (17 mil. EUR) for buses and 90.3 mil. RON (21. mil EUR) for minibuses for the transport in rural areas and for transport of participants in sports activities. Beneficiary: Ministry of Regional Development and Public Administration
- purchase of minibuses and buses - 20.6 mil. RON (5 mil. EUR) for transport of participants in sports activities. Beneficiary: Ministry of Youth and Sports
- purchase of buses - 20.1 mil. RON (5 mil. EUR) for transport of participants in sports activities. Beneficiary: Ministry of Education
- reconversion of public transport buses from Diesel to liquefied gas - 22.3 mil. RON (5 mil. EUR). Beneficiary: municipality of Ploiesti
- implementation of bicycle infrastructure in Bucharest - 44.6 mil. RON (10 mil. EUR). Beneficiary: Ministry of Environment
- investments in the Bucharest subway Line IV - 188.5 mil. RON (43 mil. EUR) and Otopeni line - 38.5 mil RON (9 mil. EUR). Beneficiary: Ministry of Transport¹⁵.

The lack of selection and prioritization criteria as well as guidance for using the ETS auctioning revenues for financing the GHG emissions reduction projects, allows the selection of projects without proper assessment of benefits in terms of reduction of GHG emissions, cost effectiveness and other important factors and might lead to the bias in the selection of projects. In addition, these projects are often not well coordinated with sectoral OPs or other instruments to reduce GHG emissions and there are few institutional links between Ministry of Environment, Waters and Forests and the beneficiary ministries that would allow better coordination.

In brief, the situation in Romania could be described as follows:

- ETS auctioning revenues are indeed used, but only in an ad hoc manner, because the properly defined financial and organizational scheme was not developed yet.
- Money collected from the auctioning are deposited in the bank account of the Ministry of Public Finance and only by exception to the provisions of GEO no. 115/2011 is allocated for different priority projects that are considered by the Government.
- Due to the RAS project, climate change topic was introduced into the Partnership Agreement and into the Operational Programs. Unfortunately most of the OPs are under serious delay.
- On NER 300 there were 2 award sessions and Romania has not any project approved.

¹⁵ GEO 215/2011 with subsequent amendments by August 2015

- On Research and Innovation Program – Horizont 2020 the stakeholders encounter serious problems with cofinancing the projects, except for the state institutions that have support from the state budget for implementing such projects.

In order to constitute a viable and longer term climate financing program it is necessary to amend the legislation in force and approve an updated financial and organizational scheme for the use of funds from ETS revenues.

Even 4 years after its release, the GEO has still a provisory character as described in the article 3: the Ministry of Finance is designated as auctioneer authority until the establishment/designation of a national authority on climate change at the national level responsible for ensuring implementation of the scheme for greenhouse gases emissions trading.

Since 2013, the Ministry of Environment, Waters and Forests was designated by the Government as the national competent authority in charge at national level with the development of climate change policies and strategies and the implementation of EU ETS as well.

Also, the current provisions of GEO are allowing only the ministries to be the beneficiaries of the funds, excluding other potential stakeholders (for example: households, SMEs, farmers, local authorities, NGOs etc.) that could contribute with significant emissions reduction. Or in a larger interpretation if the responsible ministry is applying for its constituency (for example if the Ministry of Regional Development is applying for households) the financial scheme will become much complicated.

It is recommended that the current legislation should be revised and made more flexible and based on clear procedures and competencies between authorities.

CHAPTER 2: PRIORITIZATION OF SECTORAL PROGRAMS TO BE SUPPORTED FROM EU ETS ACTIONS REVENUE in Romania

2.1 Proposed criteria for prioritization

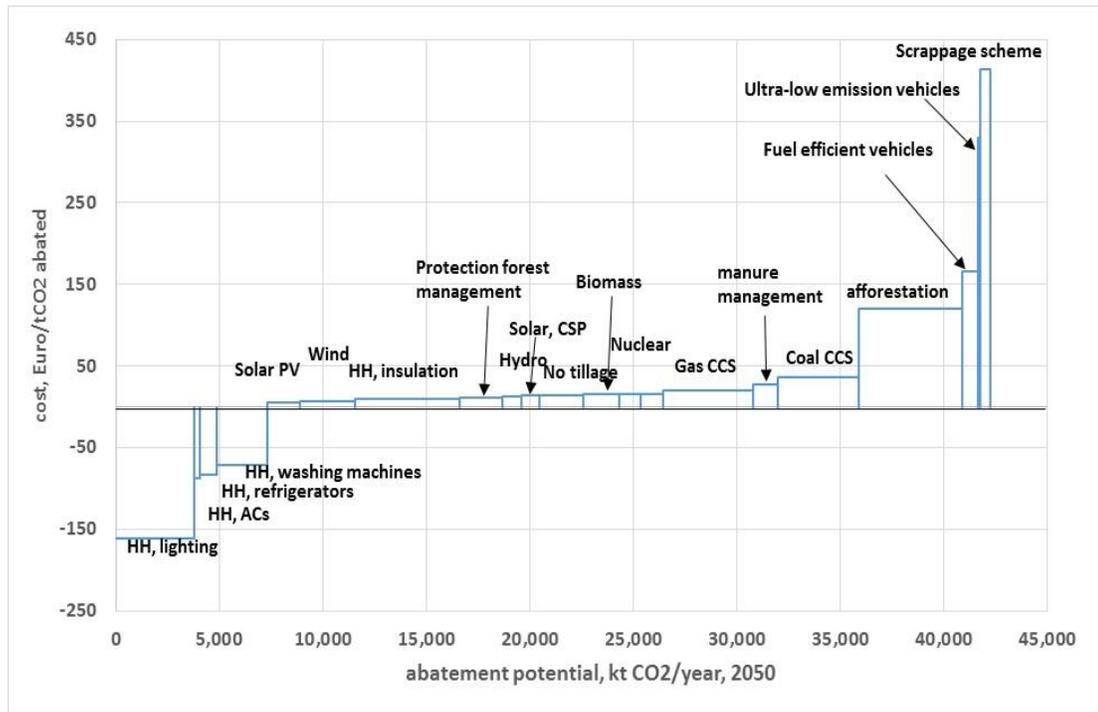
In order to maximize the environmental, social and economic impact of the possible sectoral programs as well as based on international experience the World Bank expert team propose to use the following criteria for prioritization of programs to be financed from EU ETS auctioning revenues:

1. Cost efficiency of Emissions Reduction;
2. Leverage of public money to private finance;
3. Possibility for rapid development and scale up,
4. Lack of other financing mechanisms;
5. Support for job creation.

2.2 Emission reduction potential and cost in non EU ETS sectors

An economic model developed by the WB in the RAS Climate Change program proposes green actions for four sectors that will contribute to emissions reduction in the country by 45 Mt CO₂ eq. in 2050, an equivalent of a 25 percent decrease in emissions from the level projected for the Business as Usual scenario (BAU) in 2050. The largest share of abatement – 42 percent of the total - is projected for electricity supply. Energy demand will provide a third of the overall abatement and forestry one-fifth. The lowest share of the total emission reduction is projected for transport. See Figure 9 for more details.

Figure 9. Romania Marginal Abatement Curve, cross-sectoral, 2050.



Source: Sectoral analysis reports done by the World Bank

The graph shows that several household energy efficiency measures have negative costs (benefits are exceeding the costs), this includes energy efficient lighting, energy efficient air conditioning, and energy efficient household appliances (refrigerators and washing machines). Also, several technologies in power supply, forestry and agriculture have positive, but very low cost, this includes solar PV, wind, hydropower, and concentrated solar, as well as forest protection management and housing insulation. The least cost efficient technologies are in the transport sector.

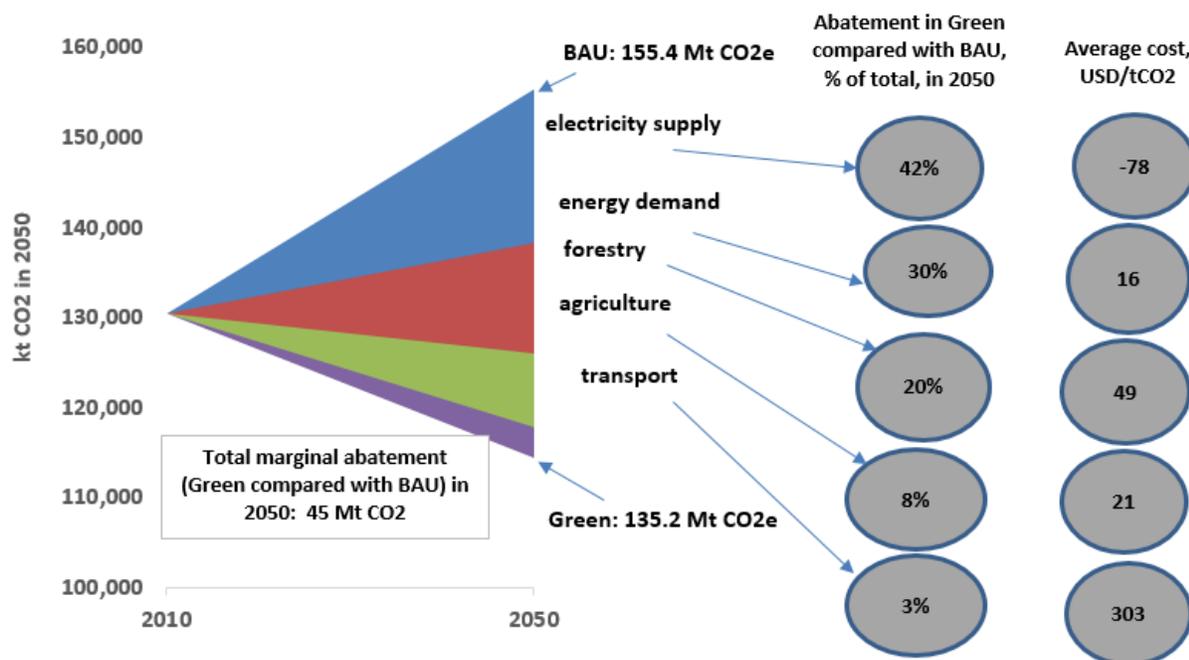
A review by sector shows that energy efficiency measures are most beneficial in the Romanian context, they have both high abatement potential and low, mostly negative cost. Electricity supply measures also deliver significant abatement level at a relatively low (but positive) cost. Forestry provides large abatement potential. Agriculture measures – no tillage and manure management – are relatively cost efficient; they also promise to provide a significant abatement benefit. The transport measures, however, have very high costs and, at the same time, a limited abatement potential. This is consistent with the discussion of the transport MACs in literature and is explained by the nature of the transport mitigation: the transport measures have multiple objectives, including, apart from abatement, reduced pollution, lowered traffic, controlled noise, reduced number of accidents, and improved quality of life. Abatement is not necessarily the main objective or the main benefit of these measures; in some cases, such as with urban congestion

control, the objective is not abatement, but economic and social development (urban growth and improved quality of life). Therefore, the transport measures have, by their nature, many co-benefits.

The graph is presenting all the potential measures for reducing GHG emissions until 2050. The most cost-efficient measures are those on the left side of the graphs that shall be implemented first.

The average costs in each of the four sectors analyzed are also reflected in Figure 10. They range from the negative Euro 78 per ton CO₂e abated in energy demand, to Euro 15/tCO₂e abated in energy supply, to 49 Euro/tCO₂ abated in forestry, to Euro 19/tCO₂e abated in agriculture, and to Euro 303/tCO₂e abated in transport¹⁶.

Figure 10. Emission reduction by sector, 2050, and average cost of the green measures, 2015-2050.



Source: WB

2.3 Lack of other financing mechanisms

Based on analysis made in Section 1.3, the following sectoral programs could be a focus for the allocation of revenues from ETS auctioning due to the gaps in existing financing:

Investments:

¹⁶ It should be noted, however, that the ease of implementation of the measures and how soon the GHG reductions are realized is not uniform. These factors should also be taken into account when selecting which ones to introduce.

1. Household's building insulation (others than those included in the Regional Operational Program and National Program Thermal Rehabilitation of the multi-levels buildings as indicated above).
2. Replacement of the households' light bulbs, households' air conditioning, individual heating systems, refrigerators and washing machines.
3. Developing small scale and household scale renewable energy production (existing investments cover only larger producers).
4. Forestry, biomass production and land use improvement (complementary to any action proposed in National Rural Development Plan for 2014-2020 or not covered at all in it).

In the process of designing the financing scheme from the EU ETS revenues, it should be taken into consideration that absorption of EU funds is a priority for Romania and before spending the EU funds for a specific priority, no other funds should be allocated, excepting the case when it is addressing other categories of stakeholders not covered by the EU funds.

2.4 Support for job creation

Job creation potential as an important additionality to emissions reduction, due to its positive effect on social cohesion, economic development and tax collection.

The biggest potential for job creation in Romania has the possible program for household's building insulation since it is labor intensive and most insulation materials are made in Romania.

From experience of Czech Republic (see Annex 1) the subsidy for thermal insulation of buildings has proven to be one of the most effective in terms of creating job opportunities within the national economy, particularly due to the high multiplication effect of 'minor' construction activities. The multiplication effect occurs due to the high degree of work involved in the total generated value in the sector and also to its established links to domestic suppliers, since most of the input is also of domestic origin. The result of this chain is the markedly above-average impact on economic growth of every RON invested within a short time period. Moreover, the effect on the creation and maintenance of job opportunities is regionally distributed, which may also be considered to be a major advantage of the program. Minor construction is one of the basic components of a local economy and does not require any workforce migration or immigration. According to authors' rough estimates this program could create up to **15,000 jobs** during its implementation.

Implementation of small scale and household scale renewable heat and electricity production program has also good potential for job creation in Romania since it requires installation by domestic suppliers and is regionally distributed. According to authors' rough estimates this program could create up to **3,000 jobs** during its implementation.

2.5 Leveraging of public funds

In this report leveraging refers to the process by which private sector capital is mobilized as a consequence of the use of public sector finance and financial instruments.

It is an important factor since public funds are always limited and the possible program needs to try to attract as much as possible of private finance to increase its climate mitigation effect.

Though this criteria depends on program design and selection of financing mechanisms, we believe that the best potential for leveraging 1 RON of public money with 1-2 or more RON of private money (savings of households', loans from commercial banks to households and small businesses, small businesses' own investments) have the following possible programs:

1. Replacement of the households' light bulbs, households' air conditioning, individual heating systems, refrigerators and washing machines.

If the public funds for the program will be equal to 88 mln. Euro, the program could attract **up to 205 mln. Euro of private money**, under conditions that public subsidy level will be 30% (explanation on calculation of investment program budgets, please see in Section 4.1.1).

2. Household's buildings insulation.

If the public funds for the program will be equal to 749 mln. Euro, the program could attract **up to 1.39 billion Euro of private money**, under conditions that public subsidy level will be 35%.

3. Small scale and household scale renewable energy production.

If the public funds for the program will be equal to 330 mln. Euro, the program could attract **up to 612 million of private money**, under conditions that public subsidy level will be 35%.

These subsidy levels are based on experience of similar programs in other countries and should be considered as initial ones. However, if there will be low interest to participate in the programs under proposed subsidy levels or government of Romania will want to assist low income families, the subsidy levels could be increased up to 50%. The 30-50% subsidy for replacement of electric appliances, buildings insulation and renewable energy installations will incentivize households and SMEs to provide private finance for other 50-70% of the project costs.

2.6 Possibility for rapid development and scale up

The score on this criteria is based on combination of the following factors:

- program simplicity (as few institutions involved as possible, as few selection criteria as possible),
- compliance with state aid rules,

- social and political acceptance,
- prior experience and existing expertise on the proposed or similar program,
- existing capacity to implement the proposed program.

The following possible programs have a good score on this criteria:

1. Replacement of the households' light bulbs, households' air conditioning, individual heating systems, refrigerators and washing machines.

The program will have high social and political acceptance (will cover about 10% of Romanian households), will comply with state aid rules (there will be no preference to particular manufacturers), and Romanian government has previous experience with a similar program for scrapping of old cars (Rabla). The program could involve implementing agency, retailers and commercial banks. The energy consumption requirements for appliances could be made rather straightforward.

2. Forestry, biomass production and land use improvement

The program, that to be focused on ecological reconstruction of forests damaged, establishment of growing woody crops for energy and non-energy purposes and establishment of forest belts and green corridors in areas with high natural risk, will contribute in a rather straightforward manner to emission reduction by enhanced removals. Such actions would have local and regional impact on rural economy, as well as higher protection of communities from natural disturbances and enhanced resources availability. Additionally, it will be also socially and politically acceptable, since forests have recreational, water regulation, soil conservation, and biodiversity values as well as provide timber and non-timber forest products and other values for public. Such program could be implemented quickly by Romsilva, which has capacity and prior experience for implementation of similar program.

These programs were either already implemented on a smaller scale or quite similar to already implemented programs in Romania.

2.7 Proposed sectoral programs to be supported from EU ETS auctioning revenues

Based on the proposed criteria for prioritization, the following sectoral climate programs could be considered during for 2016-2020 years.

2.7.1. *Climate investment programs*

1) Replacement of the households' light bulbs, households' air conditioning, individual heating systems, refrigerators and washing machines.

A number of national campaigns focusing on the replacement of those appliances could generate a considerable amount of emission reductions and could also contribute to collection of the electrical waste. The program will have **negative costs** (benefits are exceeding the costs) – it will generate more financial savings during several years for households than cost of electric appliances. The program will have good leverage to private finance (households' savings and loans from commercial banks) and could be developed and implemented rather quickly since the replacement and installment of electric appliances do not take much time. It is not supported by other financial mechanisms and complies with state aid rules.

The campaigns could be run in partnership with the organizations responsible for recycling and appliances and old equipment could be recycled and replaced by a new one with higher energy efficiency and this could increase the public interest.

Also, the retailers of electrical equipment shall be involved as well as commercial banks focused on consumer loans.

For implementing such a campaign there are a couple of options that could be developed:

- a) A campaign run by the environment authority (s) with the support and co-financing from the organizations responsible for recycling bulbs and appliances. In this case there will be a double benefit – emissions reduction and collection of the electrical waste.
- b) A program run by environmental authority in partnership with specialized NGOs and retailers accompanied by a media campaign on TV. The retailers that will decide to be involved will be reimbursed based on the effective sells of bulbs and appliances.
- c) A competition for NGOs for developing regional campaigns.

Working with NGOs could offer the advantage to make the inventory of the withdrawn equipment with its characteristics. This inventory is an important tool in calculating the emissions reduction. It is expected that retailers will be pretty reluctant to develop such an inventory, because it is over their mission.

An example of criteria for defining the program could be the followings:

- the type of electrical equipment that will be withdraw from households (ex. refrigerators, washing machines, air conditioning etc.);
- the age of the equipment (ex. refrigerators older than 5 years) or energy class (only those from class B- E) or energy consumption;
- the number of equipment that intend to withdraw (ex. 200,000 of washing machines);
- the financial incentive that a household is receiving for buying a more performant equipment (ex. 200 lei for buying refrigerator from the class A++ , 150 lei for buying one from A+ and 100 lei for class A or the same amount 150 lei for any refrigerator for the class A – A++).

- the length of the campaign (ex. 6 months).

The second option is to produce a number of vouchers equal with the number of equipment that was decided to be withdrawn that could be distributed to retailers.

At the acquisition of a new appliance, if the owner decides to return an old one, he/she could receive a voucher for discount (where the characteristics of the replaced equipment and those of the new one should be inserted).

Every new equipment that is part of the campaign and respects the recommended energy class will be discounted with the established amount.

It is important that the scrapping campaign will be accompanied by the media campaign, which will underline that buying an energy efficiency equipment contributes to emission reduction. This will contribute also to public awareness regarding the energy consumption and climate change effects.

In this way apart of the emission reduction there will be also additional benefits:

- collection of electrical equipment;
- population awareness;
- market's stimulation for energy efficient products.

The possible budget of the program could be 88 mln. Euro for 2016-2020 years. We consider that the average cost of energy efficient appliance (such as washing machine) will be about 400 Euro. The program could provide 30% subsidy (about 120 Euro per appliance) to cover cost of the appliance. Since households will need to invest their own (or borrowed) funds, we expect that the program will cover 10% of the Romanian households – about 732,000 (calculated as possible program budget divided by subsidy per appliance).

We believe that information campaign about bigger financial savings during several years than cost of efficient appliances will assist to overcome “lack of information/public awareness” barrier, while the provided subsidy will overcome the financial barrier – relatively high cost of efficient appliances for average Romanian household.

2) Household's buildings insulation

The program will focus on individual private houses and not on multi-levels apartment buildings that are covered by the Regional Operational Program.

It will cover only partially the costs of thermal rehabilitation to leverage private finance and will have also the biggest potential for job creation in Romania. It will use construction materials that are produced nationally, using local labor force and 1 euro invested into the program could bring

about 2 euros of private money (savings of households or loans from commercial banks). We propose that 35% of the thermal rehabilitation costs of a building could be provided as a grant/subsidy and the other 65% will be provided by household.

The program could generate significant emission reductions and has low cost per ton of CO₂e reduction. It is not supported by other existing financial mechanisms and programs. The program will comply with state aid rules because it is a private person who is receiving the grant and not a company.

Each individual person who is insulating the house during the implementation period of the program could apply for the reimbursement of the percentage established, based on the financial and technical dossier submitted to the Implementing Agency of the program.

Also an energy audit will be requested to be provided by the applicants that will provide specifications for the rehabilitation of the house and also assure the calculation of the emissions reduction that could be accounted for the program's indicators. The cost of energy audit could be eligible for financing from provided subsidy.

The Ministry of Environment, Waters and Forests could increase the subsidy level for areas with high levels of poverty and unemployment in a separate sub-program that could be managed in cooperation with the Ministry of Labor, Family, Social Protection and Elderly and local authorities.

UNDP Romania in partnership with MRDPA and MEWF implemented between 2011 – 2015 years the project "Improving Energy Efficiency in low-income households and communities in Romania".

A number of studies have been developed regarding population facing fuel poverty and its consequences, measures that should be taken to mitigate fuel poverty and improve energy efficiency, ecological materials for building's insulation, that are available for public on UNDP Romania website http://www.undp.ro/projects.php?project_id=63

Based on the studies already done the Implementing Agency of the program could develop a separate sub-program for buildings rehabilitation for people facing fuel poverty in low income communities.

The possible budget for the program is 749 mln. Euro for 2016-2020 years. Taking into account the average cost of family house insulation in Czech Republic (19,730 Euro) and the fact that average salary level in Czech Republic is about two times higher than in Romania, we consider that average cost of insulation for family house in Romania will be about 10,000 Euro. The program will provide 35% subsidy to cover the cost of insulation and thus the average proposed subsidy could be 3,500 Euro per family house. Since households will need to invest their own (or borrowed) funds, we expect that the program will cover 2.9% of the Romanian households – about 214,000 (calculated as possible program budget divided by subsidy per family house).

We believe that effective information campaign about expected financial savings during lifetime of efficient family house insulation will assist to overcome “lack of information/public awareness” barrier, while the provided subsidy will overcome the financial barrier – relatively high cost of family house insulation for average Romanian household. The inclusion of energy audit’s cost into list of eligible subsidy expenses will also assist to overcome important information and financial barrier.

3) Implementing local small scale and household scale renewable energy production

Though the renewable energy production is generally supported by other funds, the local small scale production and consumption of renewable energy is not supported by any program.

This type of projects could be very useful for SMEs and households with individual family houses who are interested to cover their consumption or for the small local authorities (small cities or communes) that could discount the energy produced locally from the local consumption, which will be beneficial for local budget.

It has good potential to generate significant emission reductions and has low cost per ton of CO₂e reduction. The program will have good leverage to private finance and will comply with state aid rules.

The proposed budget of the program is 330 mln. Euro for 2016-2020 years. The program could provide 35% subsidy to cover cost of the equipment. Since programs will cover households, SMEs and small local authorities, which will have different investment needs, it is difficult to estimate how many households, SMEs and small local authorities it will cover. The program will need to have upper limit for installed capacity of renewable energy sources since it is not designed to support large scale renewable energy installations.

In case of this program we again believe that effective information campaign about expected financial benefits during lifetime of renewable energy equipment will assist to overcome “lack of information/public awareness” barrier, while the provided subsidy will overcome the financial barrier – relatively high cost of renewable energy equipment for average Romanian SME or household. The inclusion of feasibility study’s cost into list of eligible subsidy expenses will also assist to overcome important information and financial barrier.

4) Forestry, biomass production and land use improvement

The program will have medium cost per ton of CO₂e reduction and could generate significant emission reductions (carbon sequestration) as well as substantial contribution to improvement in local people life, both by higher protection of communities against extreme events and enhanced access to natural resources.

Proposed program will contain the following:

GHG mitigation actions:

- 1) ecological reconstruction of forest damaged by natural and/or anthropogenic causes in the regions with low forest cover;
- 2) establishment of fast growing woody crops for energy and non-energy purpose;
- 3) establishment of forest belts and green corridors in areas under natural risks and around human communities (especially around cities);
- 4) establishment and improvement of grazing pastures in areas with public use.

Adaptation action:

- 5) Improvement of torrential catchments in river basins with critical risk for human and material losses, with focus on high density populated area;

Activities proposed here are in line with the Climate Change Strategy and National Action Plan.

All these have to be complementary to any activity which may be funded from the National Rural Development Plan (NRDP) 2014-2020, i.e. any eligible project under NRDP would not get finance under this scheme. In order to ensure this, the program implementing agency would restrict the funding applications and would also perform a project-by-project check against eligibility criteria established under relevant NRDP measures (e.g. under M08). Moreover, specific terms of reference for actions prioritization and project selection would be developed by the State Secretariat for Forestry from the MEWF, with key focus on GHG emission reduction, CO₂ removals benefits and non-permanence risks assessments.

Solution for the implementation of this program has to be adopted within MEWF, with the consultation of the Forestry Department, considering highest priority ranking among proposed activities, operatively implementation and availability of technical skills needed.

Such activities can be achieved on private or public land, while projects can be either implemented by National Forest Administration - Romsilva or other entity (e.g. private accredited companies).

Actions proposed above should be financed 100% from public funds. This is because practically there is no direct economic return expected for the proposed activity 1), 3), 4) and 5) for at least first 20 years. For activity 2) there is a strong need to stimulate entrepreneurship above all in rural areas close to land resources, being recognized a strong national potential highlighted and prioritized in various strategy (e.g. Romania's renewable action plan). Additional reason to offer more public funding is an acute lack of financial resources demonstrated by insignificant effect of past similar support, e.g. Measure 121 from NRDP 2007-2013 required partial co-financing of afforestation or biomass crops establishment.

In order to safeguard a positive contribution of Forestry and LULUCF to national climate change mitigation objective an annual rate of 2,000 ha of afforestation (consistent with the National Action Plan for Climate Change) and ecological reconstruction is proposed. The program possible budget could be 110 mln. Euro during 2016-2020 for following activities: afforestation of 10,000 ha, establishment and improvement of grazing lands on 5,000 ha, and support for other activities described above.

Actual costs follow technical specifications in individual project documentation, upon the activity implemented. For example, for afforestation type activity, the average cost is around 5,000-7,000 Euro/ha until the complete establishment of trees (max 5 years since plantation started). In strict terms of GHG mitigation benefit, afforestation generates an average annual amount of CO₂ removals of around 8tCO₂/ha/yr (estimated for the first 20 years since plantations establishment). Thus 10,000 ha of afforested land will provide annual emission reductions (carbon sequestration) of about 80,000 tCO₂ during the next 20 years after plantations establishment. For 2021-2030 years this afforested land area will reduce GHG emissions in Romania on about 0.64 million tCO₂.

2.7.2. Research and technical assistance

Apart of those sectoral measures there are a number of cross-sectoral measures that could be supported from the ETS revenues:

1. Developing capacity building for local and central authorities (training programs, climate partners model presented in the capacity building report, etc).
2. Studies for improved knowledge on mitigation as well as on the early understanding of potential effects on the national forest and forestry sector caused by projected climate change and analysis on the adaptation options: e.g. monitoring systems for anthropogenic impact, development of climate driven scenarios and simulation of forest production and productivity for until 2050, genetic resources impact).
3. Studies that are included into the Climate Change National Action Plan and any other relevant studies in line with the objectives of the EU ETS directive and Effort Sharing Decision.

All research and technical assistance activities should be in line with requirements of Directive 2009/29/EC.

We propose to use up to 1% of the revenue from the EU ETS actions (possible budget could be up to 14.5 mln. Euro) for the research and technical assistance activities.

At the EU level, climate research was one of the main research themes of the EU's 7th Framework Programme (2007- 2013) and now it is central to Horizon 2020, the new EU program for research

and innovation 2014-2020, budgeted to € 79 billion. At least 35% of the Horizon 2020 budget is expected to be invested in climate-related objectives.

For example, the Horizon 2020 Societal Challenge "Climate Action, Environment, Resource Efficiency and Raw Materials" (with a budget of about € 3 billion), supports mitigation research and innovation projects. These projects aim at analyzing and mitigating the pressure on the environment (oceans, atmosphere, and ecosystems) and improving the understanding of climate change. In addition, research actions will focus on assessing impacts, vulnerabilities and solutions for adapting to climate change, developing strategies for disaster risk reduction and stimulating a transition to a low-carbon society and economy.

Due to the fact that EU ETS auctioning revenues is national financial funds, it can be used for encouraging co-financing for the stakeholders that are applying to other European funds focusing on climate change, like Horizon 2020 or Life plus.

2.7.3. Education and public awareness

Developing campaigns on education and public awareness regarding climate change issues should be in line with the Climate Change Strategy and National Action Plan. We propose to use up to 1% of the revenue from the EU ETS actions (possible budget could be up to 14.5 mln. Euro) for education and public awareness activities.

2.7.4. Management and administration funds

Also, we recommend to use 5% of the revenue from the EU ETS actions (possible budget could be up to 72.6 mln. Euro) for the management of the ETS scheme and 5% of the ETS revenues (possible budget could be up to 72.6 mln. Euro) for the administration of the climate investment programs).

CHAPTER 3: PROPOSED IMPROVEMENTS IN LEGAL AND INSTITUTIONAL FRAMEWORK for use of revenues from auctioning of EU ETS allowances in Romania

3.1 Inconsistencies of the current legal framework

Government Emergency Ordinance 115/2011 should be amended in such a way to offer efficient and transparent implementation.

Current legislation is ineffective due to the following issues:

- Ministry of Public Finance is the auctioneer but the Government has to decide who will take over this attribution permanently, because the GEO 115/2011 establishes that the MPF is the auctioneer until a competent authority for climate change will be established.
- Environmental Fund Administration had to develop procedures for selection and assessment criteria list and guidance and for developing the program and until now it did not happen;
- In the absence of clear view, strategic directions and lack of eligibility criteria and program methodology the projects were approved by Governmental Decision.
- The line ministries had a low interest for this legislation and did not develop the state aid schemes according to GEO 115/2011.
- The Ministry of Environment, Waters and Forests as public authority responsible for implementation of the EU ETS scheme in Romania has the duty to report to the European Commission regarding the use of auctioning revenues according to the provisions of art. 17 of MMR Regulation though its involvement into the process of distribution and management of EU ETS revenues is limited and projects that are financed are not the most efficient ones and does not have methodology for emission reduction calculation;
- The only applicants under the current legislation are the line ministries and other stakeholders are not eligible to apply;
- Experience with the present legislation shows that more clear guidance is needed on operationalization of the EU ETS auctioning revenues spending.

Implementation of the RAS Climate Change program with the World Bank offer a clear vision on the big potential for emission reduction, the sectors where the most efficient measures should be applied and the time frame for implementing those measures.

The process for elaboration the current report and the process of consultation with other ministries and stakeholders revealed possibilities for improving existing legislation in order to make it effective. Subsequent legislation need to be develop for setting up the program, nominating the authorities responsible for its implementation, specifying the procedures and monitoring and evaluating the emissions reduction.

Apart of the current legislation GEO 115/2011 some other regulations and procedures should be developed such as:

- Legislation for setting up the Climate Investment Fund;
- Regulation on Advisory Committee;
- Specific rules for grant budget administration;
- Internal rules for personnel managing the fund;

and any other legislation that regulates the institutional arrangements.

3.2 Possible options for institutional arrangements of climate programs

Regarding the institutional arrangements, the World Bank expert team has analyzed the followings four options for the fund/programs management:

- 1) Ministry of Environment, Waters and Forests will be the coordinator of the fund/programs;
- 2) Environmental Fund Administration will implement the fund/programs;
- 3) Other organization(s) with experience in managing funds/programs will manage fund/programs and select projects based on the terms of references prepared by the MEWF;
- 4) 4) MEWF will share the programs management with an organization having grant making experience.

For a better understanding a SWOT analysis will be done for each of the options.

3.2.1. Ministry of Environment, Waters and Forests manages funds/programs directly

At national level, the MEWF has the responsibility for setting up the national climate change priorities on medium and long term to meet the EU objectives and obligations on climate change targets in accordance with the latest EU policy developments on climate change an energy, including for the post 2020 period.

MEWF knows exactly the importance of those funds and has the responsibilities of reporting the results, having the interest to demonstrate domestic emissions reduction.

The weaknesses are related with the lack of expertise in grant making and the limited personnel that the ministry has, correlated with the often uncompetitive level of salary (comparing with the private sector or with salaries of Environmental Fund Administration) for some categories of staff. As well, the management of the funds will require the increase of number of personnel in order to allow the performance of activities.

On the other hand a dedicated fund/programs for mitigating climate change will raise the subject on the public agenda and will increase the visibility of the ministry.

As the ministry has not in its attributions this type of activity a correction to the functional law (GEO 215/2011 amended) should be done.

One major threat in the case of the MEWF as the manager of the fund/programs is that the legislation regarding end of the fiscal year requires public authorities to redirect all the unspent money to consolidated budget.

S	W
<ul style="list-style-type: none"> - The MEWF's responsibility for setting up the national CC priorities on medium and long term to meet the EU objectives and obligations on CC accordance with the latest EU policy developments on CC an Energy, including for the post 2020 period - Responsibilities for reporting = responsibilities for better and efficient use of the revenues - Responsibilities in implementing CC strategy and action plan for transition to a low carbon economy - Responsibilities on implementing EU ETS scheme including for the period 2020-2030, based on the future 2030 package rules 	<ul style="list-style-type: none"> - Lack of expertise in administrating funds (grants making), since the ministry responsibility is policy development, implementation and compliance with climate change legislation - Limited number of personnel and often uncompetitive salary compared with other public central authorities (Ministry of European Funds, Ministry of Agriculture, etc.
O	T
<ul style="list-style-type: none"> - MEWF could decide on the prioritization of the programs and projects to be financed in order to meet the EU obligations and climate and energy objectives - Raising CC issue on the public agenda - Linking CC policy with available funds and make it more coherent - Linking CC with other sectors priorities 	<ul style="list-style-type: none"> - Require changes in the law of MEWF functioning - Revenue from the previous year could be difficult to use in the next year\ - Changes on the GEO 115/2011 should be made in order to allow flexibility as regards the programs to be financed, in case when there are not so many requests for financing - Political involvement into the program priorities or assigned personnel

3.2.2. Environmental Fund Administration manages funds/programs directly

The Environmental Fund Administration (EFA) has the advantage to have a specific law that is governing grant making and having an experience of more than 10 year. Also an important point

is that their programs are covering different type of stakeholders (local authorities, NGOs, schools, companies, etc).

EFA has a considerable number of personnel specialized on programming, implementation, evaluation etc.

The weaknesses are related with a controversial perceived reputation that it is using very bureaucratic procedures and focusing mainly on the amount of spent money and less on the results of the projects and the lack of specific knowledge and expertise on national and European climate change policies as well on assessing the climate change impact in terms of emissions reductions.

Giving the management of the funds/programs to EFA will require an institutional restructure to build capacity on climate change issues and to build confidence in the institution.

Environmental Fund Administration was nominated into the GEO 115/2011 as the authority that will manage the funds and had to develop the procedures for setting up the program, fact that did not happen until now.

Also, EFA is designated to come with a solution for the use of the revenues from the Joint Implementation - new entry reserve, accounting 1.6 million Euro, which also didn't happen.

S	W
<ul style="list-style-type: none"> - Specific law for functioning as grant making - Experience in financing projects - Specialized personnel on programing, implementing, monitoring etc. - Working with all kind of stakeholders 	<ul style="list-style-type: none"> - Lack of specific knowledge and expertise on CC policies at national and European level Perceived to have not a good reputation - Bureaucratic procedures - Focused mainly on the amount of spent money and not on the results of the projects - Lack of monitoring on the effects of the programs
O	T
<ul style="list-style-type: none"> - To restructure the institution - To build capacity and expertise on CC issues - To link fund allocation to environmental priorities and to implement strategies of MEWF - To strengthen the cooperation between MEWF and EFA 	<ul style="list-style-type: none"> - Inefficient use of revenue on an ad-hoc manner as it is now, that will affect the Romania's position during the EU negotiations under the new legislative 2030 package on climate and energy (in relation with the financial resources that are necessary for meeting the 2030 objectives for the GHG emissions reduction) - Failure of the programs

	<ul style="list-style-type: none"> - Spoiling the priorities/implementation - Scandals with stakeholders - Dedicated grants to political clients/corruption - Political involvement into decision making and use of the money
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3.2.3. Other organization(s) (public or private) with expertise in grant making manages funds/programs directly

There are various public or private institutions that during the last years managed private or public money (public money from other states like Norway or Switzerland).

For example on the energy efficiency sector the Romanian Energy Efficiency Fund (FREE) is well-known for the companies and municipalities. Another company that managed funds in the energy sector is Tractebel.

For the NGOs’ sector there are following foundations that are managing funds from the government of Norway and Switzerland: Foundation for Civil Society Development and Partnership Foundation Romania. Additionally, Partnership Foundation has expertise on climate change, as well.

There are also other public institutions that are managing Swiss funds. One implementation body is belonging to the Ministry of Regional Development and Public Administration. Short information about some of these organizations and their responsibilities could be found in annexes to this report.

One major obstacle in involving a private entity is the acquisition of the services if it will be done with the minimum price as the law of public acquisition is requiring.

S	W
<ul style="list-style-type: none"> - Experience in grant making - Authorized personnel - Oriented on efficiency of the program - Expertise in monitoring and review 	<ul style="list-style-type: none"> - Lack of trust between the institutions (public – private) - Lack of expertise on climate change
O	T
<ul style="list-style-type: none"> - For a public – private partnership - Raising expertise on CC - Reducing the risk of political involvement after contracting 	<ul style="list-style-type: none"> - Due to public acquisition procedure have to choose the minimum price not the most competent one

3.2.4. MEWF and other grant making organization manage funds/programs in partnership based on a legal framework

The last option could be the shared management of the fund/program between the MEWF, as body responsible for the implementation of the EU ETS and reporting of revenues (coordinator) and another grant making institution based on a legal framework.

The advantages are:

- MEWF could continue monitor the implementation of the program and focus on cooperation with other ministries and strategic issues.
- MEWF could make the prioritization of the programs taking into account the obligations arising at national level under the 20-20-20 package and those under the new 2030 energy and climate legislative package in respect to the: emissions reduction, the transition to a low carbon economy, improvement of energy efficiency and the renewable energy production.
- The grant making institution will contribute on monitoring the results/indicators of the project in terms of cost efficiency and will provide MEWF further support for analyzing the impact of financing the investments.
- Diminishing the risks due to separation of oversight and implementation part of the program as well as political support provided by the ministry.
- Flexibility in managing the operational issues of program implementation by other grant making organization.
- Efficiency due to combined existing expertise in grant making and monitoring as well as climate change issues.

S	W
<ul style="list-style-type: none"> - The MEWF's responsibility for setting us the national CC priorities on medium and long term to meet the EU objectives and obligations on CC accordance with the latest EU policy developments on CC an Energy, including for the post 2020 period - Responsibilities for reporting = responsibilities for better and efficient use of the money - Responsibilities in implementing CC strategy - Experience in grant making - Expertise/personnel in monitoring and review 	<ul style="list-style-type: none"> - More complex institutional arrangements - Lack of trust between the institutions
O	T
<ul style="list-style-type: none"> - Exchange of experience from one party to other 	<ul style="list-style-type: none"> - Need to prepare new legal instruments to implement this option

<ul style="list-style-type: none"> - MEWF could decide on the prioritization of the programs and projects to be financed in order to meet the EU obligations and climate and energy objectives - Responsibilities on implementing EU ETS scheme including for the period 2020-2030, based on the future 2030 package rules - Raising CC issue on the public agenda - Linking CC policy with available funds and make it more coherent - Linking CC with other sectors priorities - Raising expertise on CC 	<ul style="list-style-type: none"> - Need to increase the MEWF capacity in terms of human resources involved/responsible with the coordination of funds, based on responsibilities
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3.3 Proposed financial and organizational scheme

The most suitable solution from the World Bank perspective is the fourth option where the Ministry of Environment, Waters and Forest will set up a Coordination Unit (CIF CU) inside the institution for supervision of the Climate Investment Fund. The Climate Investment Fund will be created as a body subordinated to the MEWF and responsible for efficient use of EU ETS revenue on climate investment, research and technical assistance, education and public awareness programs. The Climate Investment Fund will select grant making and other organizations through a tendering process that will implement concrete climate programs and will play the role of Implementing Agencies (IAs).

The proposed main financing mechanism for the climate investment programs is combination of public subsidy (30-35%) and private funds from households, SMEs and small local authorities (savings or borrowed money from commercial banks – 65-70%), with exception for the “Forestry, biomass production and land use improvement” program, which will be 100% financed by the auction revenues (public funds). The subsidy level for concrete program could be increased from the proposed in this report as a result of low interest to participate in the program or defined need to focus on poorer strata of population.

We also recommend to explore in the initial phase of the Climate Investment Fund operation the possibility of creation revolving fund program that will provide soft loans (below market rate) in the sphere of renewable energy production and energy efficiency for SMEs and local authorities. However, the operation of such revolving fund will go beyond the time period of 2016-2020 years and that is why we did not include it as a separate proposed climate investment program.

CHAPTER 4: PROPOSED IMPLEMENTATION ARRANGEMENTS FOR USE OF REVENUES FROM AUCTIONING OF EU ETS ALLOWANCES in Romania

4.1 Rules and procedures of Climate Investment Fund

4.1.1. Introduction

Scope of the fund

Climate Investment Fund (CIF) is the tool for using revenues generated from the auctioning of allowances from EU ETS for climate-friendly investments.

For the purposes of this report climate-friendly investments are defined as low-carbon or climate-resilient investments that are aligned with the emissions reductions required to meet the EU policy target of limiting global warming to 2°C. This means climate investments must not just have a positive climate impact but must deliver emission cuts in a cost-efficient way.

Note: Environmental investments that have a positive environmental outcome but no low-carbon or climate-resilient impact are not in scope for this report. An example of green non-climate investments is investments for land to be used by a municipality for community parks and recreational use. Although there may be social and aesthetic benefits to such investments there is little climate mitigation or adaptation benefits. Instead, this report focuses on climate-friendly investments.

CIF is an important tool that could contribute to the fulfillment of the Climate Change Strategy objectives and respectively the implementation of National Action Plan.

CIF will not overlap with other available national or European funds dedicated to mitigate or to adapt to climate change. It will be complementary to them. The funds from CIF could be also used in case EU funds require national contribution as an application requirement.

Principles governing the fund

The principles that are governing the fund shall be similar with the principles for auctioning allowances that are laid down in Article 10(4) of the ETS Directive: openness, harmonization, transparency, and non-discrimination, simplicity, fairness, cost effectiveness (including avoidance of undue administrative costs), predictability and efficiency. Fairness and efficiency also imply mitigation of risks of market abuse (i.e. insider dealing and market manipulation) through the auctions.

Institutions in charge with the implementation of the fund and their attributions

1. **MPF** will continue to be Romania's auctioneer on European Energy Exchange (EEX).

In conformity with the provisions of art. 22 (alin. 2) of the EC regulation nr 1031/2010, the Ministry of Public Finance is the competent authority for signing on behalf of Romania the contract with the common platform and with any other system of compensation and discount related with this.

MPF is managing the accounts for collecting the revenues from the EU ETS auctioning and for disbursement to the other institutions. After taking 29% of revenues to state budget, the MPF will transfer 71% of the revenues to the special "climate" account of the MEWF.

2. **MEWF** will set up a **Coordination Unit** of the Climate Investment Fund inside the ministry that will have the following attributions:

- to prepare legal framework for establishment of the CIF;
- to prepare regulatory and procedural rules for Advisory Committee to the Minister of Environment, Waters and Forests concerned with operation of CIF;
- to set up the fund in terms of regulatory and procedural rules and institutional capacity;
- to set up the objectives, priorities and framework for operation of the fund, including climate investment programs;
- to select the climate programs and their corresponding budgets;
- to supervise operation of the fund by analyzing monthly and quarterly operational reports as well as annual financial and implementation reports about progress in implementation of climate programs;
- to monitor that the Fund adhere to the established by AC guidelines in its operations, including selection of IAs, monitoring, reporting and verification activities of IAs and prepare proposals to adjust priorities and organizational structure of the fund if necessary;
- to report to the European Commission on the use of ETS revenues.

The CIF Coordination Unit will be a structural unit of the Directorate General for Climate Change, MEWF. Its status and attributions will be set up by the Minister of Environment, Waters and Forests through internal ministerial regulation. The chief of the unit will report to Head of Directorate General for Climate Change. Staff of CU will be selected by MOEWF as per appropriate regulations for selection of civil servants.

After establishment of the Fund, CU will monitor activities of the Fund by analyzing monthly and quarterly operational reports as well as annual financial and implementation reports about progress in implementation of climate programs. In case of having questions on the reports the CU will ask the Fund to prepare answers/clarifications on these questions. If CU will see the need

for corrective actions by the Fund in its implementation of climate programs, it could organize working meeting at the level of chief of CU and relevant staff of the Fund or at the level of Head of Directorate General for Climate Change and Director of CIF. If necessary the CU could elevate the issue to the level of minister and AC.

Besides supervision the CU will support the Fund in its relations with other ministries and public organizations, NGOs, private organizations, international organizations, Romanian Parliament, mass media.

3. Advisory Committee (AC) will consist of representatives of the central authority for public finance (currently Ministry of Public Finance), central authority for economy (currently Ministry of Economy, Trade and Tourism), central authority for energy (currently Ministry of Energy, Small and Medium-Sized Enterprises, and Business Environment), central authority for agriculture (currently Ministry of Agriculture and Rural Development), central authority for regional development (currently Ministry of Regional Development and Public Administration), representatives from private businesses, climate science and non-governmental organizations.. The AC will provide credibility to the CIF and support it in its development, from the strategic point of view, and the well-functioning of the fund.

The legal status of AC should be established by amended GEO no. 115/2011 (or possible new law). The operational rules for AC as well as its composition will be set by MEWF regulation. It will be a consultative body within MEWF focused on operation of CIF and implementation of climate programs. It is recommended that AC will include not more than 10 members in order to be effective. The representative of MEWF will chair the AC. The decision of AC will be made by qualified majority (two third) of AC members. The decisions of AC should be approved by the Minister of Environment, Waters and Forests in order to be implemented by CU and CIF.

The main tasks of Advisory Committee will be the following:

- provide input and guidance concerning strategic objectives for implementation of the climate programs that will be financed by CIF;
- adopt guidelines on reporting and monitoring;
- adopt guidelines on disbursement;
- adopt guidelines on access to information on the CIF and climate programs;
- verify the evaluation process of the fund;
- provide input on the proposed tender rules for selection of Implementing Agencies, prepared by CIF;
- approve annual financial and implementation reports of the CIF.

The AC will not supervise day-to-day operation of the CIF. This function is delegated to CU.

4. Climate Investment Fund (CIF) will have the following main attributions:

- to prepare the amount dedicated to the each call of proposals on concerned program, based on the MEWF technical assessment and the Advisory Committee opinion;
- to organize tendering for selecting the Implementation Agencies;
- to supervise activities of the Implementing Agencies in order to ensure efficient implementation of the climate investment, research and education programs;
- to approve the eligibility criteria for the projects, proposed by the IAs;
- to approve final list of projects to be financed and the amount dedicated to the each call of proposals on concerned program, based on the MEWF opinion;
- to assess the progress and results of the programs based on the assessment of IAs, also in terms of CO₂ emission reductions achieved by the programs;
- to report to MEWF on implementation of climate programs.

CIF will be public institution and a legal person subordinated in its activities to the MEWF. The Director of CIF will be appointed by the Minister of Environment, Waters and Forests through open competition process. Its status will be established by amended GEO no. 115/2011 (or possible new law). The MEWF will coordinate activities of CIF through CU. Staff of CIF will be selected based on rules prepared by CU and approved by AC and Minister of Environment, Waters and Forests.

5. Implementing Agencies will have the following main attributions:

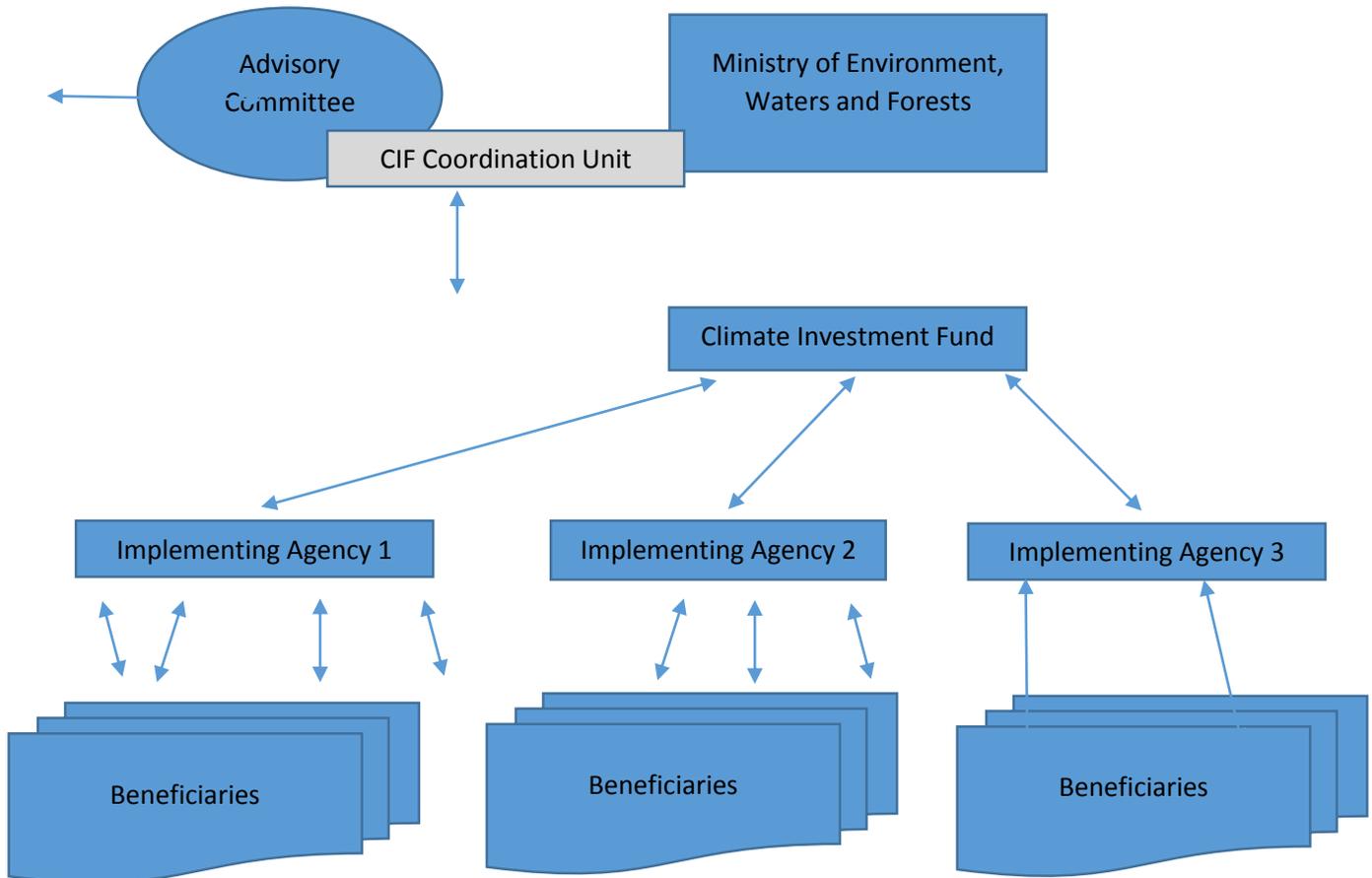
- to elaborate the eligibility criteria for climate program, the guidelines and procedures for the different calls of proposals, the indicators for monitoring and verification;
- to prepare concrete plan for implementation of the climate program, based on parameters established by the CIF;
- to inform the stakeholders about the scope and parameters of the program;
- to launch the calls of proposals;
- to evaluate the received project proposals;
- to prepare the proposed list of projects to be financed and the amount dedicated to the each call of proposals on concerned program and submit them for approval to CIF;
- to inform the beneficiaries about the results of their project proposals;

- to assess the emissions reductions to be achieved through the projects selected before making the preparing the final list of projects to be financed;
- to supervise as well as work in closed cooperation with the projects proponents;
- to arrange the disbursements to the beneficiaries based on the rules and procedures;
- to monitor and evaluate the progress and the results of the projects;
- to report to CIF about the progress and results of concrete climate program;
- to evaluate and report to CIF the climate change indicators reached within the program.

The IA could be an existing public, non-governmental and private organization that is legal person and has relevant experience, capacity and knowledge to implement particular climate program. CIF will select IA through tender and coordinate/manage IA under guidance from AC and supervision from CU. IA will directly work with beneficiaries of particular climate program.

In some cases, when there is no organization in Romania with relevant experience, capacity and knowledge, CIF could implement climate program directly, without IA. However, such cases should be properly justified and approved by AC and CU.

Figure 11. Proposed institutional arrangements on use of ETS auctioning revenue in Romania.



Legal framework applicable to the program

CIF should be in line with the provisions of the ETS-Directive 2009/29/EC, Article 10, which states: “Member States shall determine the use of revenues generated from the auctioning of allowances. At least 50 % of the revenues generated from the auctioning of allowances [...] should be used for one or more of the following: (a) to reduce greenhouse gas emissions, including by contributing to the Global Energy Efficiency and Renewable Energy Fund and to the Adaptation Fund [...], (b) to develop renewable energies [...](c) measures to avoid deforestation [...] (d) forestry sequestration in the Community; (e) the environmentally safe capture and geological storage of CO₂, in particular from solid fossil fuel power stations; (f) to encourage a shift to low-emission and public forms of transport; (g) to finance research and development in energy efficiency and clean technologies in the sectors covered by this Directive; (h) measures intended to increase energy efficiency and insulation or to provide financial support [...] (i) to cover administrative expenses of the management of the Community scheme.”

Apart of the modification on the current legislation regarding revenues from ETS there will be necessary new pieces of legislation regarding setting up and operationalization of the CIF, attributions of the Coordination Unit, Implementing Agency and Advisory Committee, functioning procedures, etc. that will be developed further on.

Time frame

The CIF will be set up for the time frame of 5 years 2016 – 2020.

The first year of the program (2016) will be used for setting up the legal framework, administrative frame, institutional capacity and launching of the programs, and the other 4 years for effective implementation.

The program could be extended taking into consideration the amount available and the results of the ex-post evaluation of the program.

Financial frame

Latest estimation by World Bank

The World Bank in its report “The EU ETS up to 2030: decoding auctioning challenges for Romania” (mostly prepared in the end of 2014) estimated that Romania could earn from ETS revenues an amount of 2.379 billion Euros in 2016-2020 years (five year period) under scenario of annual reduction factor of 1.74% and middle range price scenario (6-12 Euro per EUA). Taking into account the difference between the actual figures of EU ETS revenues for 2013 and 2014 years, received from the Romanian government, and the WB estimates, the World Bank team applied 14% discount factor to the projections from its report. This way we came to figure of **2.046 billion Euros** of EU ETS revenues during 2016-2020 years.

The 29% of those revenues are transferred to the consolidated budget and from the remaining funds (in amount of 1.453 billion Euros), that should be spent on emission reduction activities, we proposed to use 1% for the research and technical assistance, 1% for education and public awareness, 5% for the management of the ETS scheme in Romania and 5% for administration/management of the investment programs, financed from EU ETS revenues (see Section 2.7 of this report). Thus we come to about **1.278 billion Euros available for investment programs during 2016-2020 years** with the following distribution among the proposed programs:

1. Household’s building insulation – up to 750 million Euros.
2. Replacement of the households’ light bulbs, households’ air conditioning, individual heating systems, refrigerators and washing machines – up to 88 million Euros.
3. Developing small scale and household scale renewable energy production – up to 330 million Euros.

4. Forestry, biomass production and land use improvement – up to 110 million Euros.

Review of the annual allocation shall take place every year and unspent allocation on the current year will be redistributed for the next years.

Management costs

Estimated value of the management cost is 5 % of the allocated budget (up to 72.6 million Euros) for 2016-2020 years or up to 14.5 mln. Euros annually.

Management costs shall include the costs of running the fund, costs of the evaluation and monitoring, costs of internal and external audit, costs of publicity and information sharing.

4.1.2. Proposed Climate Investment Programs and Beneficiaries

Climate Investment Programs

- I. Replacement of households' electrical appliances
 - Light bulbs
 - Refrigerators
 - Washing machines
 - Air conditioning
 - Individual heating systems
- II. Household's building insulation
 - Building's insulation for individual family houses
 - Building insulation of the persons facing fuel poverty (optional).
- III. Implementing local small scale and household scale renewable energy production up to 50 kW
 - Solar energy
 - Wind
 - Geothermal
 - Biomass.
- IV. Forestry, biomass production and land use improvement

- 1) ecological reconstruction of forest damaged by natural and/or anthropogenic causes in the regions with low forest cover;
- 2) establishment of fast growing woody crops for energy and non-energy purpose;
- 3) establishment of forest belts and green corridors in areas under natural risks and around human communities (especially around cities);
- 4) establishment and improvement of grazing pastures in areas with public use;
- 5) Improvement of torrential catchments in river basins with critical risk for human and material losses, with focus on high density populated area.

Beneficiaries

- Local communities
- Individuals/households/farmers
- Private sector
- Local authorities
- NGOs.

All the beneficiaries and their applications should comply with the eligibility criteria of the program. A proposed list of eligibility criteria is presented in Annex 3 of the report.

4.1.3. Eligibility of expenditure and subsidy level

Eligibility of expenditure

- Additionality of funding

The CIF is intended to create an additional source of funding for mitigating and adapting to climate change and shall not replace financial support from other sources, including local and EU grants, subsidies, bank loans etc.

- Starting date for eligibility of expenditure

Eligibility of expenditures incurred after the signing of the contract, if it is not decided on another way.

Percentage of Grant/Subsidy

Proposed percentage of grant/subsidy

1. Household's building insulation – 35%.
2. Replacement of the households' light bulbs, households' air conditioning, individual heating systems, refrigerators and washing machines – 30%.

3. Developing small scale and household scale renewable energy production – 35%.
4. Forestry, biomass production and land use improvement – 100%.

These subsidy levels are based on experience of similar programs in other countries and should be considered as initial ones. However, if there will be low interest to participate in the programs under the proposed subsidy levels or government of Romania will want to assist low income families, the subsidy levels could be increased up to 50%.

Grant rate for private sector will be in accordance with the State Aid legislation in Romania.

State aid shall be granted in accordance with the terms and conditions specified in the Regulation of the Council of Ministers dated 22 December 2006 on establishing the scheme of regional aid for certain environmental protection investment projects (Journal of Laws No. 246, item 1795, as amended).

The intensity of the state aid for Greening Activities is calculated by taking into consideration the total value of state aid from all sources stipulated in the financial engineering of a given project and cannot exceed the acceptable intensity of public aid specified in the Regulation of the Council of Ministers dated 22 December 2006 on establishing the scheme of regional aid for certain environmental protection investment projects (Journal of Laws No. 246, item 1795 as amended).

4.1.4. Cost overruns and savings on investment budget

In case the project costs exceed the budgeted cost in the grant agreement, the Beneficiary shall ensure additional funding.

If the final cost of the project is below the total cost stipulated in the grant agreement, the overall sum of grant paid will be reduced accordingly and any unduly paid amounts reimbursed by the Beneficiary.

The Coordination Unit may recommit the unused funds for new programs/projects. Applications for the recommitment of funds shall be processed in the same way as applications for other projects.

4.1.5. Application procedure

Applicants

All public or private sector bodies and non-governmental organizations (NGOs) constituted in Romania as legal entities and operating in the public interest - e.g., national, regional and local authorities, education/research institutions, environmental bodies, voluntary and community organizations and Public-Private Partnerships and demonstrating concern and activity on climate change sector may apply for grant.

Partnerships between private and public institutions should be encouraged but not for avoiding public tenders.

Individuals may apply only for the priority programs that are designated for individuals (building rehabilitation and replacement of electric appliances).

Announcement of the program

Implementation Agency shall publicly announce the availability of grants on different communication media (websites, lists of discussions, mass-media, etc).

Application and evaluation

IA shall organise calls for proposals and evaluation of received applications.

Application process shall be organized in two phases:

- Project Idea Note (PIN) - the idea of the project and the potential for emissions reduction;
- Full project proposal - detailed description of project, including technical, organizational, financial and implementation details.

The assessment shall be transparent, based on input of experts and evaluators and conducted in accordance with the principles, rules and procedures of the fund.

Implementing Agency evaluate and select PINs that could be developed into full project proposals. It reports to CIF about number of received and approved PINs.

The IA shall present to the CIF the evaluation prioritization of full project proposals and shall provide a reasoned written opinion of the proposed projects. On the request of CIF, IA shall ensure full access to the received applications and will provide any clarifications if needed

CIF will ensure that full project proposals, recommended for approval by IA, have all necessary documents and evaluation opinions and submit them to Coordination Unit for approval with own opinion on each full project proposal.

The Advisory Committee could verify randomly a number of applications.

The CU will decide on the final list of approved projects and is responsible for the final decision. In case of big projects under such programs as Developing small scale and household scale renewable energy production as well as Forestry, biomass production and land use improvement, AC will be involved into approval of full project proposals.

Grant agreement

A grant agreement shall be concluded between the IA and the beneficiary for any individual project, programmes or specific forms of grant assistance. Grant agreement format should be approved by the CIF.

The grant agreements shall set out the terms and conditions of grant assistance as well as the roles and responsibilities of the parties.

4.1.6. Program implementation

The IA shall bear responsibility for the implementation of climate program and follow-up of projects as well as on monitoring and reporting on the results to the CIF.

Reporting and Monitoring

The IA shall be responsible for the reporting on and the monitoring of projects. The reporting shall be made according to indicators developed and approved with the CIF and agreed with the AC.

The IA shall, amongst other things, report at least once a year to CIF on:

- Progress in accordance with plans and budgets;
- Deviations from the project schedule and possible repercussions for the project;
- Tendering and procurement;
- Project completion

The CIF may at any time ask the IA for further information regarding the programs. The reporting shall be done in accordance with guidelines on reporting and monitoring adopted by the CIF.

Evaluation and review

The IA shall provide annually to the CIF evaluation report of the program and a reviewing proposal if is the case.

Based on the measures proposed by the IA as well as the CU and AC assessment, the CIF shall revise and adapt the program for the next year.

Disbursement

Disbursement relating to specific forms of grant assistance shall be decided by the CIF.

Publicity and access to information

The IA and the Beneficiary of the grant shall ensure that the existence of the CIF as well as information on approved projects are communicated in the most efficient way to users and the

public at large and that the contributions of the CIF are given adequate publicity. The CIF shall ensure that a publicity plan is prepared for the program by the IA and similarly the IA shall ensure that each project has a communication component that is submitted along with grant applications.

Publicity and access to information measures shall be carried out in accordance with guidelines on them adopted by the Advisory Committee.

4.1.7. Audits and financial control

Transparency and documentary evidence

The IA shall provide an audit trail for operations financed by the CIF.

The IA as well as the final beneficiary shall ensure that all original documents remain available for inspection for at least 5 years after the project has been completed.

Financial control, audit and anti-fraud measures

The IA shall be responsible for the financial control and audit (in case of big projects) of approved projects. The IA shall ensure that efficient and prompt investigations of any suspected and actual cases of fraud and irregularity shall be undertaken and shall inform CIF thereof.

Audits and inspections

The CIF may decide on audits and inspections at the IA anytime and will inform CU before an audit/inspection is carried out.

The authorized representatives of the CIF or accredited auditors employed by the CU shall be granted access by the IA to any documents or information they deem appropriate, including those created or stored in electronic form. They shall in particular be given access to the accounts of audited institutions and documents relating to expenditure financed by a grant from the CIF.

The authorized representatives shall also be given unrestricted access to projects implemented by private or commercial institutions and NGOs.

The results of the audits shall be presented to CU and AC.

4.1.8. Completion of projects

Completion of projects

The IA shall prepare a project completion report according to the requirements of the grant agreement. The CIF shall make the final disbursement based on the project completion report.

The completion report shall be done in accordance with guidelines on reporting and monitoring adopted by the Advisory Committee.

Mid - term review and Ex-post evaluation of the climate programs

The mid-term review shall take place after 2 years of implementation of the climate program. An ex-post evaluation shall be carried out after completion of the program.

The mid-term review and ex-post evaluations shall be carried out by an independent body selected through tender. The body carrying out program evaluation shall submit a report to the CU and AC.

The ex-post evaluation report shall not replace other reporting requirements.

The ex – post evaluation shall contain also the climate change indicators (GHGs reductions, carbon intensity, etc.) and recommendations for continuation and improvement of the program.

Other post-completion obligations

IA shall ensure that projects that involve investment in real estate and/or land (including renovation) are operational at least 10 years after they have been completed, unless otherwise stipulated in the grant agreements.

An ex-post evaluation of projects that demonstrates non-compliance with the Rules and Procedures and the grant agreements may give the CIF reasons to take corrective action, including claiming the reimbursements of funds.

4.2 Project implementation scheme

The projects follow the project management cycle:

1. **Initiation stage** – starts with the launching of the call for funds based on the priorities established by the Advisory Committee of the Climate Investment Program.

The program shall provide all the necessary information on time for potential beneficiaries.

It is recommended that a number of information sessions to take place in different cities, for explaining the aim of the fund, the objectives and the eligibility criteria.

At the time of launching, all the administrative documents shall be ready and public, for being analyzed with the stakeholders (applications guides, indicators, letter of intent, application form, etc.).

The documents should not be changed during the implementation stage. This was one of the reason why the Operational Program on Human Resources Development 2007 – 2013 had multiple problems in implementation.

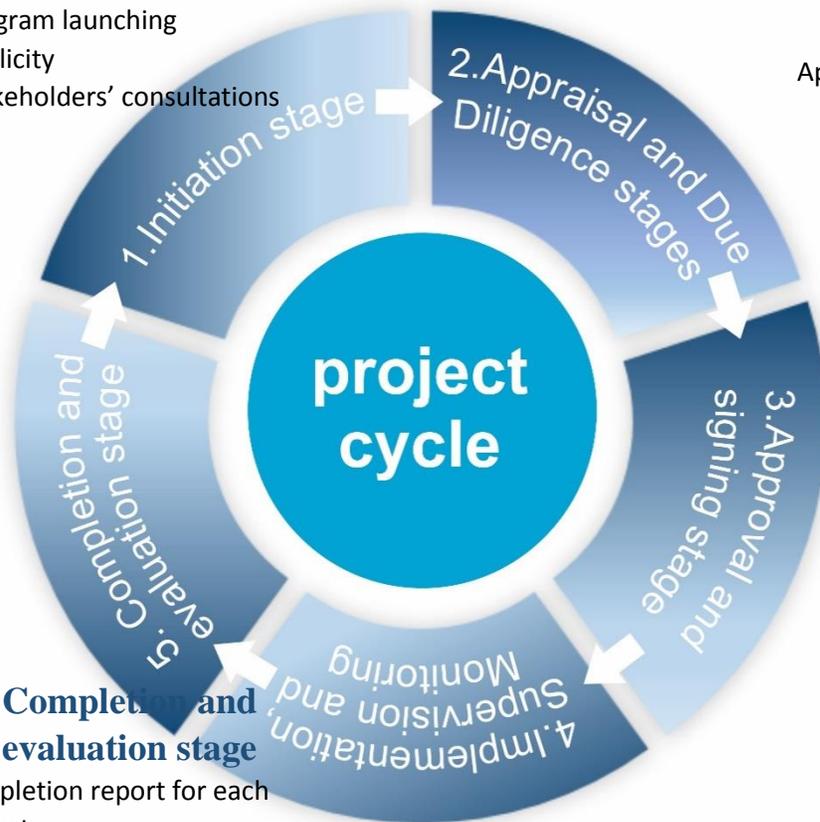
The deadline for submitting the applications is an important key in the process. Preferably for the transparency and predictability of the program the number of calls should be known from the very beginning. It is recommended to have 1 or 2 calls per year and the launching time to be maintained every year (for example: April and October). This can help also the beneficiaries in setting up their priorities and estimating the efforts for project proposal writing and implementation process. The allocated amount for each call it is also important to be known in time. That's why a multi-annual allocation is important to be done from very beginning.

1. Initiation stage

Program launching
Publicity
Stakeholders' consultations

2. Appraisal and Due Diligence stage

Applications' submission
Evaluation
Approval of the AC of the final list of winning applications
Letters of approval for the beneficiaries



3. Approval and signing stage

Contracts concluded
Signing contracts

5. Completion and evaluation stage

Completion report for each project
Annual evaluation submitted by MA to the AC and MEWF
Improvements proposals
Consultations with beneficiaries on evaluation and improvement
AC review of the program

4. Implementation, Supervision and Monitoring

Payments' disbursement by MA
Trimestral progress report by beneficiaries
Midterm and final report from the beneficiaries
Monitoring visit of MA to the projects

2. Appraisal and Due Diligence stage

The IA shall receive the project proposals at the deadline established in the guide of applicants, register them, and inform the applicants regarding the application number received.

It is recommended to the IA to develop and use an electronic web- based platform for registering the applications online, in order to ensure transparency of the program.

IA shall assure the evaluation process based on clear and transparent evaluation criteria. A proposal shall be evaluated by at least 2 evaluators. The evaluators are responsible for their appraisal. The ranking set up by the evaluators are submitted by the IA to the CIF that can check randomly the submitted applications.

In case of inadvertences in evaluations the CIF could ask IA for re-evaluation.

IA shall inform CIF on the final approved list of projects as well as the list of reserves and the list of not- approved projects and will made them available to the public with the score obtained.

All the participants shall be informed about the score obtained.

The applicants could submit a contestation at the evaluation that will be treated responsible and will receive a clear and valid answer in a certain time (ex. 1 week).

3. Approval and signing stage

Upon receiving approval of the final list of projects from the CIF the IA shall conclude the contracts with the beneficiaries.

4. Implementation, Supervision and Monitoring

CIF shall transfer the advance payment to the beneficiaries and the projects implementations starts.

IA has the duty to supervise the implementation of the projects and to run at least one monitoring visit to each big project during the implementation time.

All the beneficiaries shall submit progress report about the stage of implementation, estimated expenditures done and results. At the middle term of project implementation each beneficiary submit a narrative and financial report.

Only after approval of the midterm report, the beneficiaries shall receive the next disbursement. The last installment will be disbursed at the end of the project implementation based on the final narrative and financial reporting.

5. Completion and evaluation stage

A completion report shall be done by IA for each project and submitted to the CIF.

The IA shall make an annual evaluation for the projects implemented or under implementation that shall be submitted to the CIF.

The evaluation shall contain also the climate change indicators like carbon intensity, ton of CO₂e reduction, etc. IA shall also evaluate the way how the program was implemented and to proposed to the CIF a list of proposals for improvement.

IA could conduct consultations with the beneficiaries in order to find better ways for implementing the program. The CIF takes note of the IA proposals and could propose to CU and AC new measures for improvement of the program.

CHAPTER 5: POSSIBLE USE OF FLEXIBILITY MECHANISMS IN NON EU ETS SECTORS

5.1 Flexibility mechanisms in ESD

The Effort Sharing Decision contains flexibility mechanisms to help Member States achieve their targets until 2020. The current flexibilities can be grouped in three categories:

- a) Within a Member State: banking and borrowing between years
- b) Between Member States: trading of AEA and project-based mechanisms
- c) International: credits from CDM/JI projects

The purpose of these flexibilities for Member States is to enhance the overall cost-effectiveness of reaching the EU-wide 2020 target.

For the 2030 perspective the European Council has expressed its desire that *"the availability and use of existing flexibility instruments within the non-ETS sectors will be significantly enhanced in order to ensure cost-effectiveness of the collective EU effort and convergence of emissions per capita by 2030."* Flexibility instruments should be simple, transparent and easy to manage for Member States. The intention that international project credits will not be allowed in the ESD after 2020 means that a stronger emphasis on the two existing internal flexibility mechanisms will be needed.

5.2 Banking and borrowing of AEAs during the compliance period

Member states are allowed to carry forward during 2013-2019 a limited amount (up to 5%) of AEAs from the following year and carry over unused AEAs to subsequent years up to 2020 to cover any AEA shortage in specific years. Different levels of borrowing than the current 5% limit could be envisaged for the period after 2020 to help Member States achieve their annual targets by managing their own AEAs, bearing in mind that a higher level of borrowing early in the commitment period could increase the risk of individual Member States not meeting their targets later in the period.

5.3 Transfers of AEAs between EU Member States

During 2013-2019 EU Member States may transfer up to 5% of their AEA for a given year to other Member States, which can use this emission allocation until 2020 (ex-ante). Overachievements in a year between 2013 and 2019 may also be transferred to other Member States, which may use this emission allocation until 2020 (ex post).

There are several possible ways to stimulate AEA transfers among Member States. These include creating a more transparent market for AEA transfers, being less restrictive in how much Member States can transfer among each other before the compliance checks, and more direct measures

to enhance availability of AEA, such as project-based mechanisms or auctioning of a number of AEA.

Market transparency could be enhanced by requiring Member States to report more openly and frequently on AEA transactions and prices or by encouraging transfers to pass through certain trading platforms.

The current 5% limit for AEA transfers before the compliance check could be increased, however, it should be noted that increasing this limit could also increase the risk of individual Member States not meeting their targets later in the commitment period 2021-2030.

Different kinds of project-based mechanisms for cost-efficient compliance within the ESD could be considered. Such an approach could attract targeted investments in ESD sectors prioritized by the host Member State and ensure more certainty that AEA will become available for transfers by potentially allowing private sector initiatives. However, a verification and certification system would need to be established to guarantee the environmental integrity and validity of the credits which would entail upfront administrative costs.

Auctioning of a certain percentage of AEA could ensure that an annual supply of AEA becomes available for MS to acquire.

Romania is overreaching its target for 2020 and it will be in the position to sell AEA to other countries. Based on the EEA analysis, currently 13 MSs will need additional efforts to meet domestically their 2020 targets, while other 15 MSs are already projected to reach these commitments with existing policies and measures.

5.4 Credits from CDM/JI projects

Member states are also allowed to a certain extent to purchase international credits every year (CERs - under Clean Development Mechanism and ERUs - under Joint Implementation mechanism). The use of project-based emission credits is capped yearly to 3 % of 2005 ESD emissions in the Member State. Member States that do not use their 3 % limit for the use of project-based credits in any specific year can transfer their unused part for that year to other Member States or bank it for their own use until 2020.

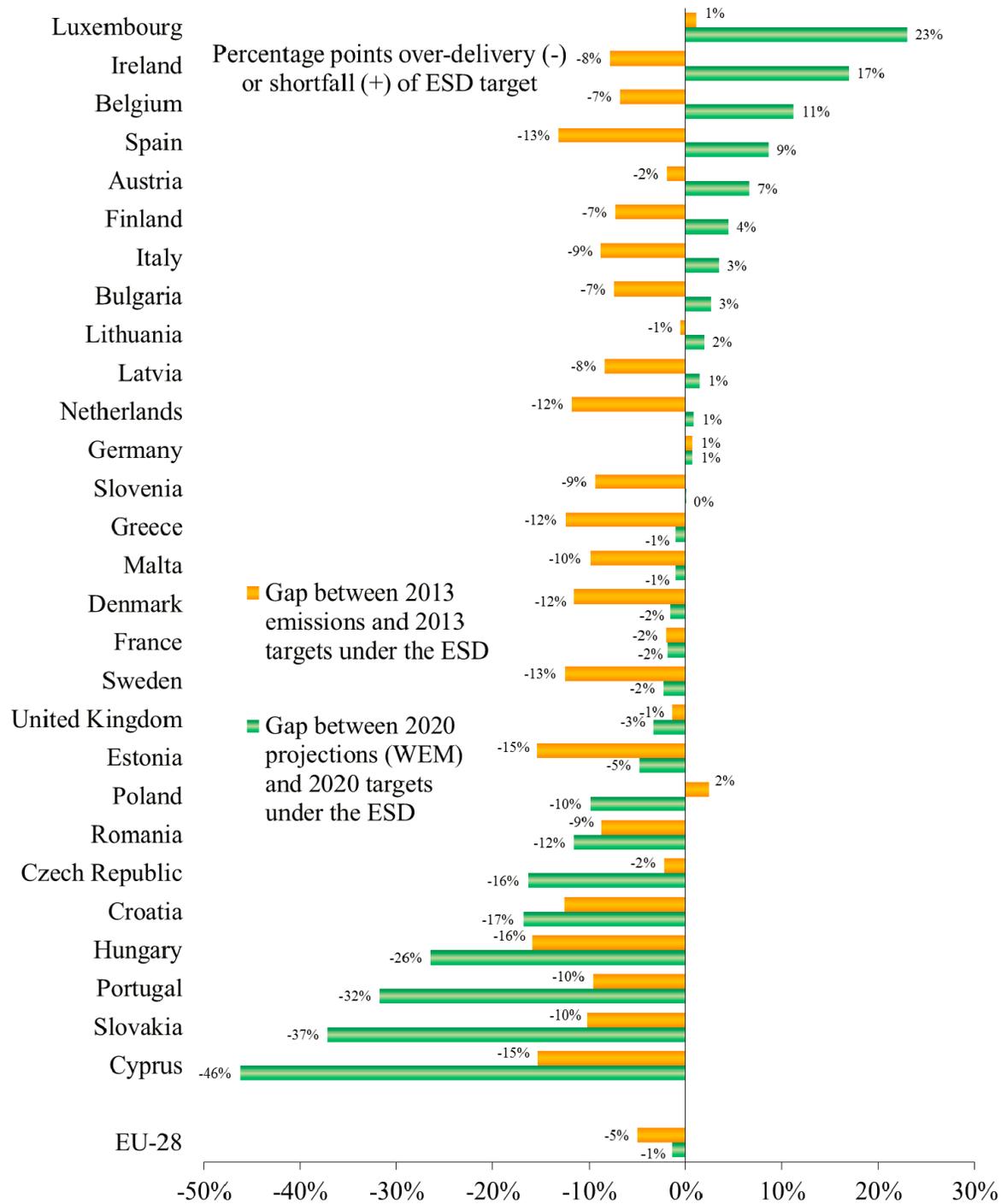
5.5 Situation with emissions under ESD in 2013

The Figure 12 below presents the situation for 2013.

It is expected that for 2030 the allocation to be more restrictive, but on the other hands the borrowing between two phases seems not to be possible at least at this moment.

The next phase of ESD is under public consultation at this moment.

Figure 12. Gap between projected 2020 emissions and targets in the non-ETS sectors (in percentage of 2005 base year emissions) and gap between the 2013 emissions and the non-ETS 2013 target.

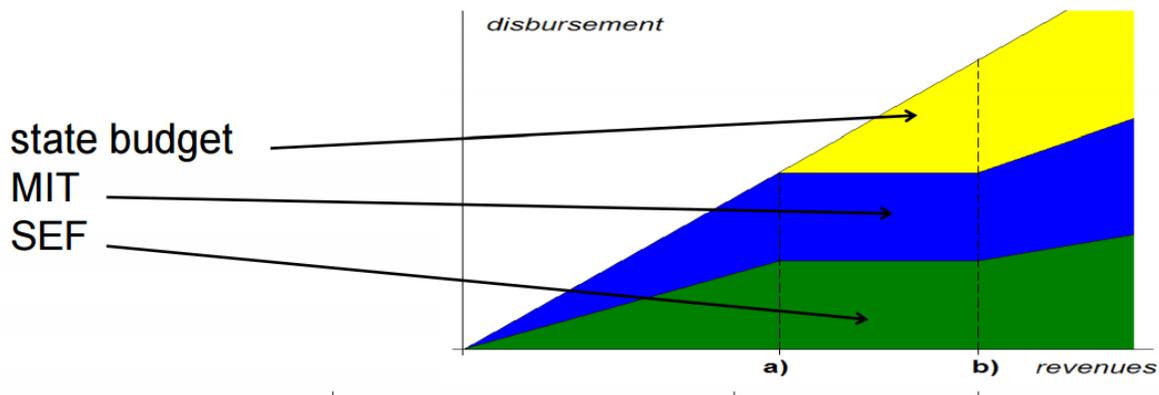


Source: European Environment Agency (EEA), based on Member States' draft submissions of national GHG inventories to UNFCCC (15/04/2013) and projections of non-ETS emissions available as of 15/04/2013. The 2013 projections have been checked yet by EEA.

ANNEX 1: Experiences of EU countries on use of EU ETS revenue

CZECH EXPERIENCE

In the Czech Republic, legislation introduced in 2008 enabled the sale of AAUs (later applicable to EUAs in 2009-2012). In 2012, the new emissions trading act was approved, which applies the same rules for ownership and management of allowances as previously for AAUs. The proceeds from auctioning of allowances are income of the state budget, of which at least 50 % are earmarked for measures that reduce energy consumption and GHG emissions, increase energy efficiency, for district heating networks, industry, buildings, transportation, for research and development, adaptation to climate change, climate-related development aid and administration of EU ETS and Registry. The earmarking of just 50% for climate targets is not compliant with EU ETS Directive, which requires that 62.35 % of EUA and 100 % of EUAA revenues should be earmarked for climate, whereas the Czech Republic has earmarked only 50 % of EUA+EUAA revenues. In 2014, the legislation was amended so that revenues up to 12 mil. CZK (450 mil. EUR) should be 100 % earmarked for stated purposes, and revenues exceeding this amount are transferred to the state budget (point a in the graph below). The share of earmarked revenues cannot be lower than 100 % of EUAA revenues + share of EUA revenues as in Art. 10(3) of the ETS Directive. If total revenues from auctioning of allowances reaches 19 mil CZK (point b in the graph below), the funds that are transferred to state budget, SEF budget and MIT budget should increase in the same proportion.



The total revenues would be split 50:50 between the State Environment Fund (SEF) and the Ministry of Industry and Trade (MIT). Unlike SEF, until now MIT does not have a well-designed program with clear priorities (it organizes calls for energy savings in public buildings, which duplicate OP Environment and is not implemented; supports renewables, not implemented; and finances an information campaign related to proper use of energy labels of buildings). In practice, until 2014, funds were transferred from MIT to SEF to supplement the budget.

The Czech Government has set up a State Environmental Fund (SEF) as agency within the Ministry of the Environment. It supports environmental investments and administrates national and EU programmes. The funds may be carried over to the next year. The Fund operates a Green Savings Programme since 2009 and for 2014-2020 a new Programme has been approved, following also the amendment of the legislation concerning the use of proceeds from auctioning the allowances. The amendments of the program take into account the findings of studies in 2012 undertaken for the Ministry of Environment, which showed that investments in construction activities in district heating networks and energy efficiency improvement in buildings have a GDP multiplier of about 2.63. The new program brings several adjustments: it is less focused to complex insulation of buildings, it cancelled the list of qualified suppliers to meet the requirements of the public procurement legislation, it recommended a list of products and technologies. It also extended the eligibility to investments previously made and simplified administration (e.g. banks not involved, less documents needed, no check from AAU buyers).

Flow of funds to SEF: Allowances are auctioned by the power exchange OTE, and the revenues are transferred to the Ministry of Environment. The Ministry issues guidance on how the money should be spent and projects should be prioritized. SEF administers the application process, whereas payments are approved by the Ministry of Environment, which manages the funds.

Since 2009, the SEF administrates the Green Savings Programme which finances insulation of buildings; replacement of heat sources with low efficiency; and promotes low-energy construction of buildings. Eligible expenditures include actual insulation for households - family houses and apartment buildings, with or without panel technology, and public buildings; project documentation; and technical assistance. Applicants include individuals and legal persons (associations of flat owners, municipalities). Apartment houses are eligible only in Prague (other regions may apply for funding from EU funds administered by the Ministry of Regional Development). Also, the call for public buildings should not be opened until funding from OP Environment will be disbursed, to avoid overlaps. The application process is as follows:

- 1) finding a project designer and an energy expert
- 2) discuss the project with local construction authorities
- 3) filling in an overview form with the energy specialist
- 4) filling in an online application
- 5) printed application and other documents are submitted at one of the SEF offices within 5 days
- 6) application check
- 7) application acceptance

- 8) finding a constriction supervisor
- 9) choice of materials, suppliers, realisation of the project (A: 18 months, B: 24 months, C: 9 months)
- 10) final application evaluation
- 11) registration and decision on subsidy assignment
- 12) payment of the subsidy
- 13) final project evaluation

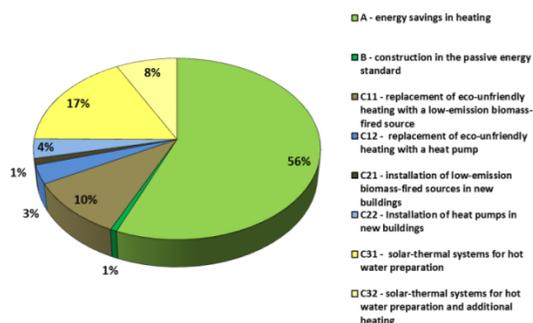
The application may be submitted before, during or after the implementation of the project. SEF might approve only partial payments, depending on the level of environmental improvements achieved.

Subsidies may cover a maximum of 50 % of eligible costs: for family houses up to 5 mil. CZK (0.2 mil. EUR); for apartment houses up to 10 mil CZK. Other factors might be included to support investments in specific areas, e.g. in regions with worse air quality eligible costs are increased by a factor of 1.1 and in sites with historical buildings by a factor of 1.3.

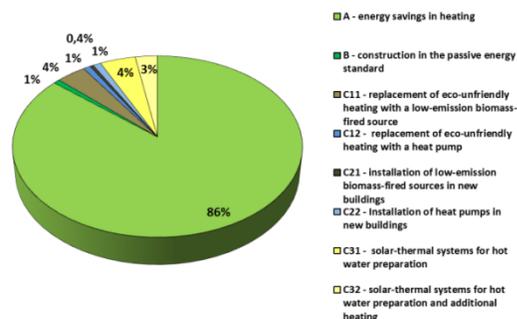
Building insulation was defined as a priority based on a study (Deloitte) that indicated the potential for emissions reduction and the program was also very popular and politically feasible. The most popular projects financed under the Green Savings Programme are housing insulation and replacement of coal-fired boilers with biomass boilers.

In 2009-2014, SEF disbursed 20,300 mil. CZK (750 mil. EUR). SEF is financed from sales of AAUs (20.5 bn. CZK) and national budget (0.5 bn. CZK).

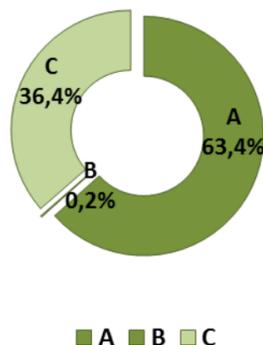
Overview of applications by area of subsidy.
74 096 applications in total.



Overview of applications by allocated subsidy.
CZK 20,270 billion.



Reduction of CO2 emissions by area of subsidy
Reductions in total: 792 087 t/year



SEF undertakes on-site inspections before, during and, after execution of the project, to check the quality of works. There are also financial inspections to check the proper disbursement of funds. About 8% of all applications are checked.

POLISH EXPERIENCE

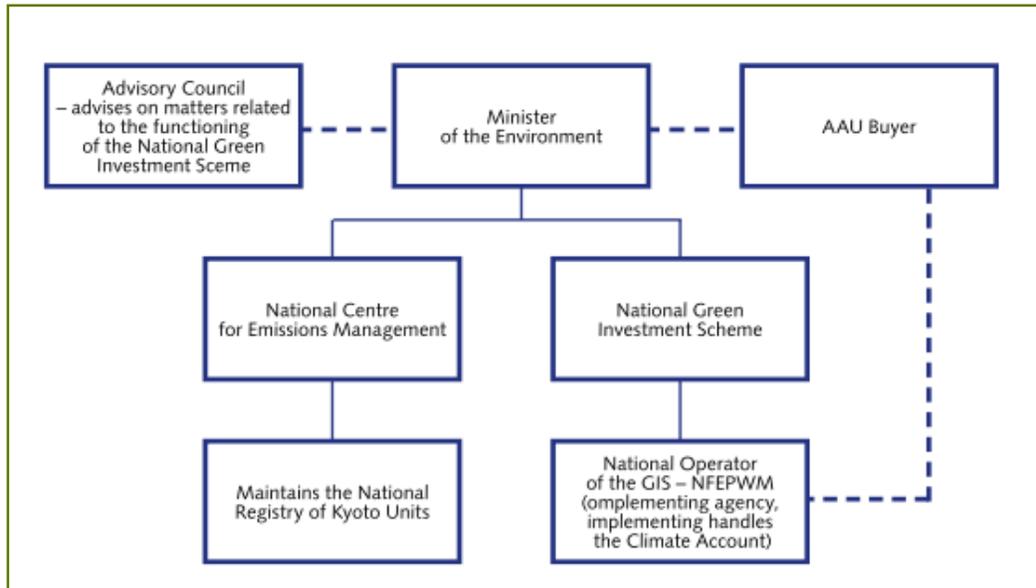
Poland administers a complex program to reach its climate targets, fully correlated within national and regional public budgets, consisting of a multi annual framework (6 years), in line with EU and with the national strategy for environment.

Since 2008, when Poland met the criteria to trade AAUs, the Ministry of Environment executes the AAU Purchase Agreements on behalf of the State Treasury of the Republic of Poland. Since 2009 the Ministry of Environment concluded 10 AAU Purchase Agreements amounting to EUR 190 million. The scheme for the management of the proceeds from the sale of allowances is illustrated below. The revenues are administered by National Fund for Environmental Protection and Water Management.

The National Fund is a Governmental agency with an annual budget of €1–2 billion. The Fund administers all programs concerning environment and climate (see figure below), regardless of sources of funding. It has its own strategy for support programs, which is approved by a supervisory board that includes several line ministries. Certain priorities are earmarked, according to requirements from specific legislation (e.g., Energy Law, which provides penalties for non-compliance with certain obligations and requires the proceeds from such penalties to be used only for energy projects). Apart from the earmarked funds, the remaining sources are "pooled" and allocated to priority programs with own budgets, own deadlines for implementation, ecological objectives, and assessment criteria, which are integrated in NEF's strategy. The model requires high level of technical competencies, complex prioritization for the preparation of NEF strategy, solid coordination among line ministries to decide the strategy, and coordination with the regional environment funds from each of the 16 vojvodships (regions).

The National Fund selects projects through a competitive procedure, supervises Greening Activities implementation, ensures proper monitoring & reporting and reports on the implementation to the Ministry of Environment.

Figure: Polish model of managing proceeds from sales of allowances



The National Fund's main revenue sources are: replacement charges for energy obtained from RES and penalties according to the Energy Law; fees resulting from the Act on Recycling of End-of-Life Vehicles; concession and maintenance fees; fines and fees for economic use of the environment; financial revenues; and revenues from the sale of AAUs. It also supports projects in a variety of forms, as repayable loans, as grants, as subsidies for interest rates.



The Fund manages a series of broad horizontal environment priorities and programs, which are fully correlated with national and regional environment strategies. The selection of projects to be financed under each of these priorities is done through competitive calls depending on available funding. The selection criteria consist of:

- eligibility criteria: formal criteria and substantive criteria
- environmental effect, immediate and sustainable; data and assumptions must be reliable
- technical feasibility - proper selection of technologies, realistic implementation schedule
- cost analysis - proper assessment of costs for investments, operation, maintenance
- financial structure (including cofinancing)
- choice of technology based on alternatives
- criteria for selection of project: cost efficiency.

The main programs supported by the NEF are:

1. The Green Investment Scheme „GIS” (Total budget 860 mil. EUR for 2010-2017). The main source for GIS consists of proceeds from auctioning of allowances.

GIS aims at reducing CO₂ emissions by funding projects to improve energy efficiency in public buildings and in buildings owned by national budget units. Eligible public buildings include local authorities and associations, Volunteer Fire Brigades, universities, health care institutions, NGOs, churches etc. that provide services in health care and social assistance. Buildings under national budgetary entities concern building belonging to government administration, state budget institutions, Polish Academy of Sciences and its research institutes, state and local cultural institutions, municipal and district state owned fire brigades. The main investments concern thermal insulation and efficient lighting. The GIS provides grants (30% of eligible costs) and/or loans (up to 60% of costs) for public buildings. For the buildings owned by national budgetary entities, GIS provides grants of up to 100% of eligible costs. So far, GIS has supported energy efficiency measures in 1,533 buildings and contributed to a reduction of CO₂ emissions by 200,000 Mg/year.

2. "LEMUR" Energy-efficient Public Buildings (Total budget 69 mil. EUR for 2010-2017)

LEMUR supports projects for the construction or reconstruction of low energy or passive public utility buildings and finances design documentation and construction of buildings. Eligible beneficiaries consist of legal entities that provide public utility services, e.g., legal entities of the public finance sector (excluding state budget institutions), local legal entities, commercial

companies 100% owned by local governments, NGOs, churches etc. The amount and type of financing (loans or grants) varies from 10% to 60%, depending on the environment gains (emission reduction, energy savings). The CO₂ savings would reach 30,000 Mg/year.

3. Energy efficiency improvement (71 mil. EUR 2013-2022)

The program supports energy efficiency in new constructions of residential buildings. Eligible applicants are individuals and provides grants (up to a certain amount) for the support of construction or purchase of single-family houses or flats. The funding is channelled through 6 banks.

4. „BOCIAN“- decentralised, renewable energy sources (136 mil. EUR in 2015-2023)

BOCIAN supports energy production from renewable sources construction of small capacities: wind farms, PV micro-hydropower plants, geothermal, biomass (max. power 20 MW) and biogas biomass high-efficiency cogeneration, solar collectors for thermal energy generation with heat storage and agricultural biogas plants. Applicants are entrepreneurs. The program finances loans of up to 85% of eligible costs and maximum 40 mil PLN. Until now, 48 projects have been approved.

5. Promotion of renewable energy sources

- Grants for solar thermal collectors (107 mil. EUR in 2010-2014): The program supports the reduction of CO₂ emissions by providing funding for heat production from renewable sources. Beneficiaries include individuals and housing associations. The funding is channelled through 6 banks. The support consists of a bank loan (from the bank's own funds) up to 100% of project costs, whereas the National Fund provides a 45% grant to partially repay the principal of bank loans. Over 67,000 installations have been supported so far.

- „Prosument“ – RES installations (190 mil. EUR, 2014-2022). The program provides support to increase electricity and heat production from small scale renewable sources and finances both the equipment and the technical documentation. The goal is to reduce CO₂ by 215,000 Mg/year and increase energy from RES by 470 MWh / year. The financing is administered through local communities, through banks, or through the regional environmental funds. It provides partial grants (20% for heat, 40% for electricity); partial subsidy for interest for bank loans; and the level of financing declines in 2016. Total financing per beneficiary is also capped.

6. „KAWKA“- elimination of low emission supportive growth of energy efficiency and development of distributed RES (68 mil. EUR, 2013-2028).

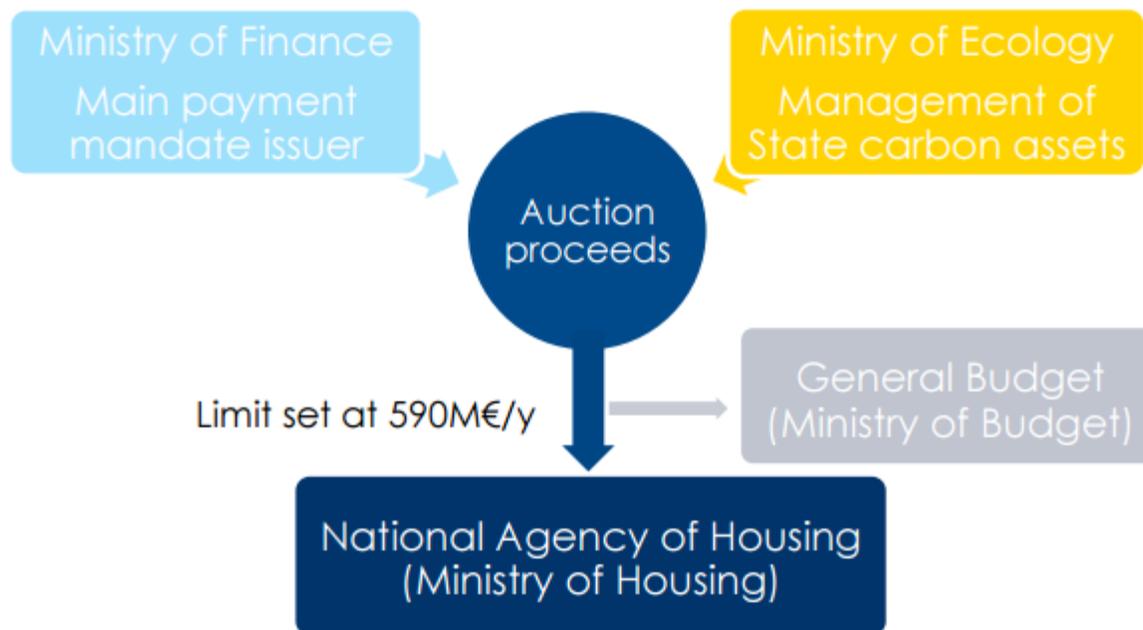
The program supports the elimination of low emission related to improving energy efficiency and the use of high-efficiency cogeneration systems and RES reduction of air pollutant emissions from

municipal transport. It supports the switch from individual or coal heat boilers to district heating; expansion of district heating; high-efficiency boilers, heat pumps, solar collectors, thermal renovation of blocks of flats, and the reduction of air pollutant emissions from municipal transport. It provides grants and loans and applicants can be from cities above 10,000 inhabitants or touristic areas. The CO₂ target is a reduction of 65,764 Mg/year.

FRENCH EXPERIENCE

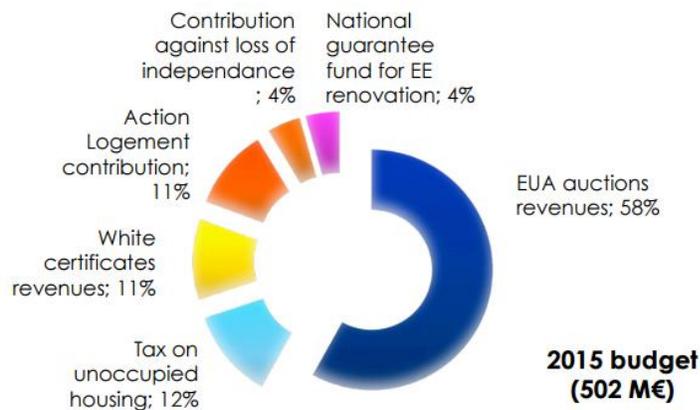
The French had different legislations before and after 2013 for the use of revenues from auctioning of allowances. Before 2013, there were no auctions scheduled in French NAPs I & 2, though France announced its intention to use the market to fill up the NER when needed. In 2012, at the end of phase 2, France obtained 43.46 M€ from non-aviation early auctions. In 2013, under ETS, France obtained about 210 M€. Since 2013, France changed its legislation on the use of revenues from ETS auctioning. It earmarked all revenues for housing programs undertaken by the National Agency of Housing (ANAH) up to 590 M€ per year to meet the presidential commitment to renovate 500,000 homes per year by 2017 (120,000 social housing and 380,000 private housing). Housing renovation was a priority in view of the increasing concerns on “energy poverty” (i.e. higher share of energy bills in households’ spending), but also because such works are labour-intensive and could reduce unemployment.

Since 2013, when money is allocated for housing:



Priorities: ANAH's budget is targeted at 4 priorities: renovation of degraded houses; promoting energy-efficient renovations and fighting energy poverty; adapting homes to the loss of

autonomy due to disability or aging; supporting distressed condominiums. The budget for 2015 was allocated as follows:



Staff: 120. ANAH operates through 186 local delegations (Local offices of the National Agency for Housing), which distributed 46% of Anah’s subsidies in 2014.

Instruments: ANAH uses grants for means-tested beneficiaries (individuals - owners, home-lenders; condominium associations); and also grants for social, financial and technical assistance to ensure quality, ambition and cost-effectiveness of renovations. Grants cover only up to 50% of the cost and up to a certain amount, depending on income levels. All projects have to include an energy audit (before and after), which allows reporting on the use of auction revenues. Another Government program, "Habiter mieux", with a budget of 125 M€, and local budgets, can top up funding from this scheme.

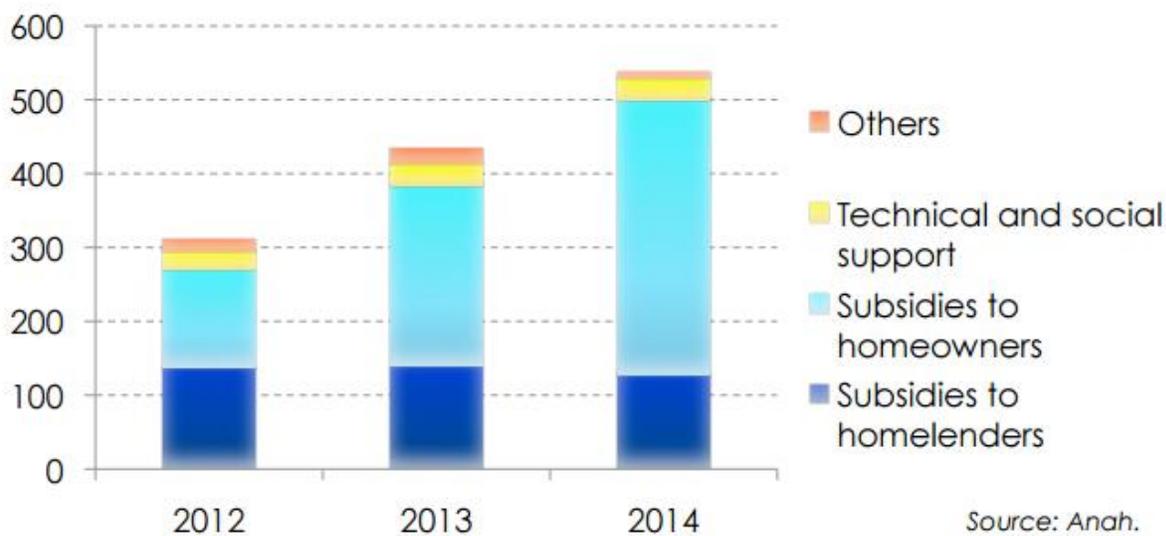
Project selection: Eligible projects are identified in collaboration with regional administrative units. At the regional level, the State representatives (préfets) forecast the needs for ANAH’s subsidies, according to the Agency priorities and with the help of the regional administration. In 2014, 69% of subsidies are granted for operations planned in collaboration with local authorities. Local authorities (city and department levels mainly) organize call for proposals for beneficiaries, based on specific tools developed at the national level to help (e.g. Energy-efficiency ambassadors scheme). There is also a national information platform created in 2013 (“Rénovation Info Service”) which aggregates existing calls and opportunities. Applications are submitted at the local level and projects are approved when all due administrative documents are provided. ANAH circulates detailed instructions on project evaluation and provides support to local teams at the national level (“hot-line” + training sessions). Justifications of the works have to be provided to trigger ANAH’s payment.

During implementation, projects are monitored and audited internally and externally, first at local level and by sample by central level. External audits are mandated by the Ministries of ecology and housing. The whole program is evaluated mid-term and at the end.

Results: In 2014 there were 75,000 houses renovated, 716.8 M€ distributed for a total of 1,400 M€ worth of works (179.3 M€ outside of ANAH's budget). The average subsidy amounted to 6,318€ for homeowners. The average energy efficiency improvement: 38%. 3 out of 4 projects benefitted also from Habiter mieux financing. Under Habiter mieux, there were 49,831 EE renovations (+60% from 2013; +300% from 2012) and 571 M€ distributed (average subsidy 11,460€).

50% of beneficiaries are 60 or older, 46% live in small or very small towns and 45% under the poverty threshold (compared to their share of just 14% in the general population). In June 2013, the means tests were lowered meaning more couples and less-than-40 homeowners became eligible.

Expenses in 2012-2014 in M€



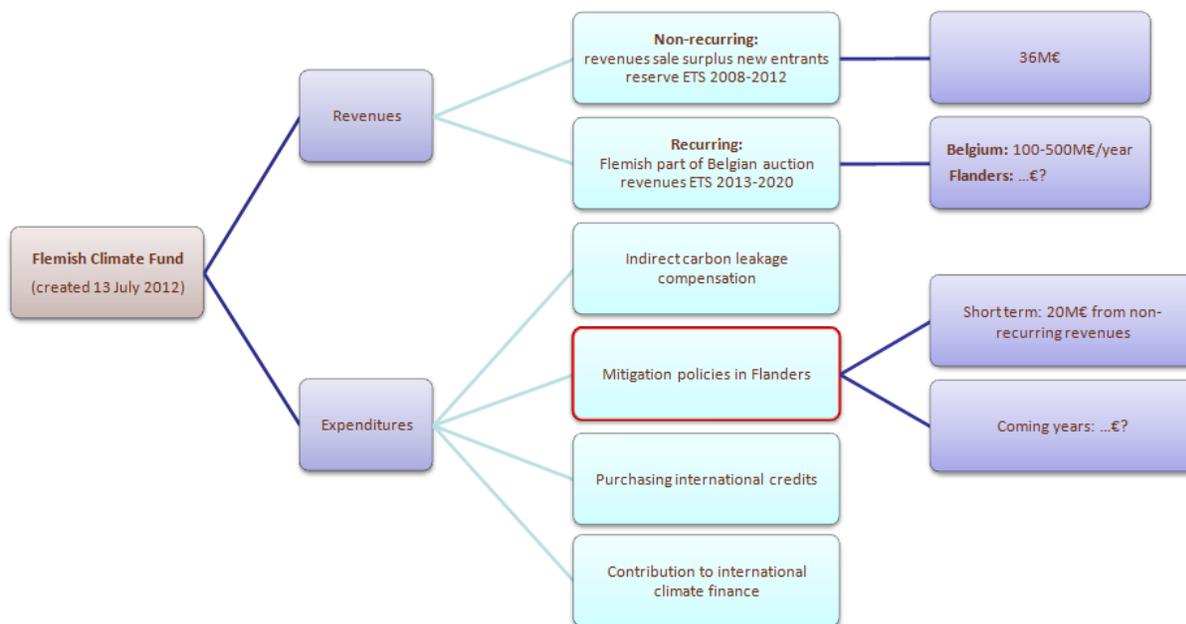
Main lessons learned: The choice for massive financing of one policy creates political visibility and coherence, though ex-ante earmarking creates uncertainty regarding the actual amount of funds available. However, earmarking revenues facilitates traceability and reporting.

Revenues were estimated in 2012 while EU ETS allocation for phase 3 was not finalized. The market price dropped between 2012 estimates and 2013 auctions, which required that ANAH had to use its treasury to close the year. Including ex-ante estimates in the budget of ANAH created major problems. Renovation subsidies have gained more clarity since 2013. The main

changes included simplification of eligibility criteria (only two categories of beneficiaries) and simplification of subsidies' levels. This policy needs strong involvement of local partners. Unbalanced budgets requiring budget subsidy to complete the program could jeopardize the system's stability. In addition, renovation works are complex and take time to be decided and implemented. The communication campaign since 2013 has attracted more public interest. Possible solutions to the issue of having to forecast earmarked revenues are to use (very) conservative assumptions for the first years that can be fine-tuned later. Also, another method could be to delay the use of auction revenues to the following years.

FLEMISH EXPERIENCE

The Flemish Climate Fund was set up in 2012 to contribute to the Flemish mitigation plan for non-ETS. The Fund is financed through the auctioning of EU emission permits. The generated revenues are used to finance the effective and cost efficient implementation of Flemish climate policy with a focus on mitigation. For 2013 and 2014 the budget is € 36.5 million. The Fund's structure is presented in the illustration below:



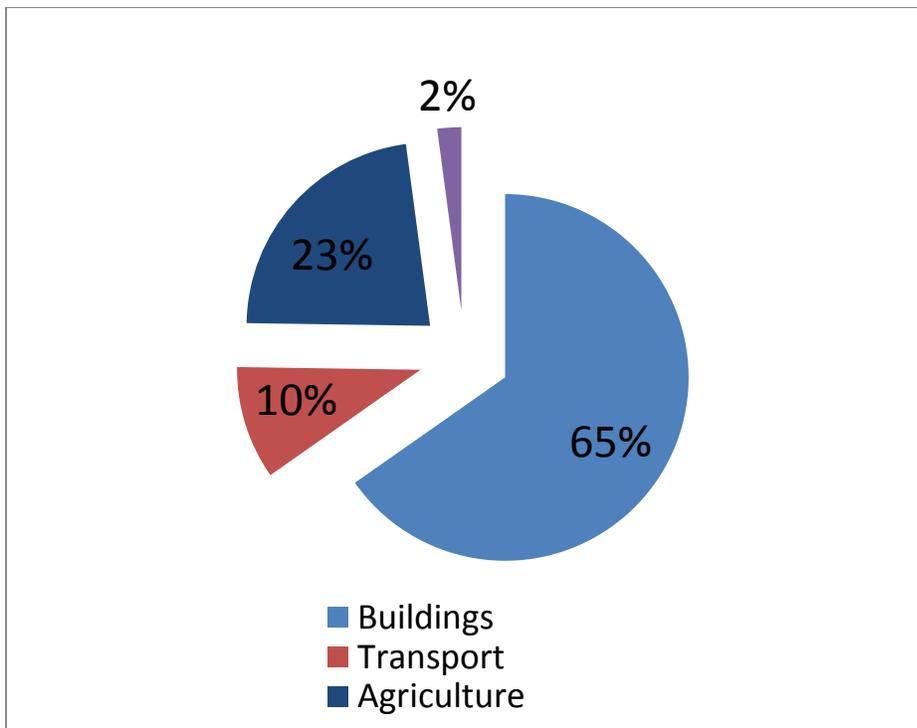
Since in the BAU scenario the emission targets could not be reached, the Flemish Climate Fund can co-finance measures to reduce emissions below the BAU case and integrate mitigation in all relevant policy domains. The funds are used for projects in various sectors (housing, agriculture, energy consumption metering, transport measures such as bicycle lanes, replacement of public transport vehicles, renewable energy sources etc.

Project selection: projects are submitted by different ministries. They are evaluated based on multiple criteria: cost efficiency (75%, determined as EUR from the fund to reduce 1 ton of CO₂);

additionality (complementarity without overlap with other policies) and other criteria (implementation trajectory, low carbon economy, renewable energy, sustainability - environment, economy, social). There are trade-offs among various criteria which have to be taken into account. E.g. Efficiency vs additionality - very efficient measures would perhaps be undertaken without support. Efficiency vs long term climate goals: e.g. heat pumps not efficient now but needed to reach 2030 and 2050 goals. Measures should also stimulate other policy domains, e.g. stimulate directly initiatives of private sector, NGOs and local authorities. Also, it might be more difficult to finance many small measures than to finance a single large project with less burden. There is also a trade-off between the political freedom to select and decide vs objective framework for selection of measures and budget allocation.

Different ministries proposed 34 new measures, of which 14 were selected and allocated 20 M€ in total.

Allocation by sector:



The main projects financed included:

1. Buildings

- Grants for deep renovation:
 - Subsidy for deep renovation for Social Housing Companies (7,9M€)

- Increased renovation grant for combined investment in wall insulation and glazing (3,7M€)
- Specialized energy advice for:
 - Heritage buildings (350.000€)
 - Tourist infrastructure (450.000€)
- Telemetry (electricity, gas and water) in school buildings (25.000€)
- Increased energy efficiency grants for SMEs

2. Non-ETS industry

- Intensive sectorial energy guidance and advice for SMEs

3. Transport

- Additional Flanders Logistics consultant for SMEs (750.000€)
- Subsidy for charging infrastructure for electric vehicles on carpool parkings (500.000€)
- Shore-power infrastructure for inland navigation (100.000€)
- Subsidy for CO₂-low busses (600.000€)

4. Agriculture

- Energy consultancy project for farmers (400.000€)
- Investment support for small scale fermentation (pocket digestion) on farms (2.250.000€)
- Investment grant for pilot project low value residual heat from waste incinerator for greenhouse cluster (1.900.000€)

So far, half of the selected policies were implemented. The total expected reduction of GHG is 4.5 Mton CO₂-eq reduction over the lifetime of the investments, for 20M€ (compared to total non-ETS emissions Flanders in 2012 = 49.9 Mton CO₂-eq).

SPANISH EXPERIENCE

In Spain, since 2005, the auctioneer is the Secretary of state for Environment, which signed a cooperation agreement. The funds are received the day after the auction in a target account in

the Bank of Spain, managed by the Secretary of State, and weekly, revenues are transferred to the Treasury. Legislation in 2012 specified that 90% of the auction revenues, up to €450 million, would be allocated to the power sector (renewable energies), in a program managed by the Ministry of Industry, Energy and Tourism; and 10% of the auction revenues, up to €50 million, would be used for other climate change policies, managed by the Ministry of Agriculture, Food and Environment. Since 2012, the amounts collected reached 1 bn. EUR.

Most of the support went to the production of power from renewable sources.

Technology	Year 2014				Average support (EUR/MWh)				
	Installed capacity (MW)	Electricity sold (MWh)	Average support (EUR/MWh)	Support (EUR million)	2010	2011	2012	2013	2014
PV	4,672	8,202	298	2,441	415	309	305	348	298
CSP	2,300	4,959	253	1,253	267	241	271	252	253
Wind	23,002	50,993	25	1,253	45	41	42	39	25
Biomass	770	3,706	65	243	77	75	84	77	65
Subtotal	30,745	67,860	76	5,190	94	86	91	90	76

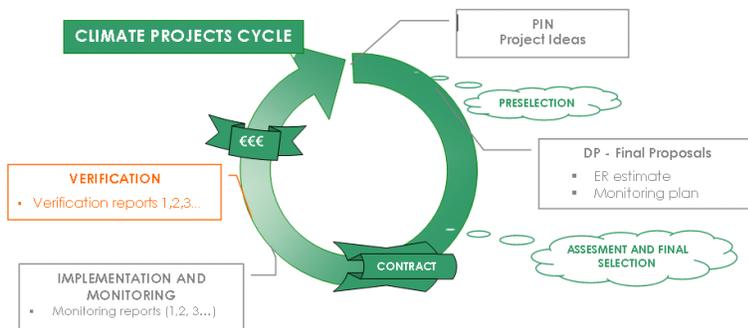
The Carbon Fund for a Sustainable Economy (FES-CO2) provides financial support to projects that reduce emissions by purchasing carbon credits. It supports GHG reduction projects in sectors such as buildings, transport, non-ETS industry, agriculture, waste, HFCs. Its priorities are on meeting climate change commitments; transition to low carbon sustainable economy; enhancement of economic activity, growth and employment; and support for the Spanish productive sector: public-private cooperation to foster green economy.

Among projects financed:

- Agriculture: Farm: Recovery of methane from anaerobic digestion of manure to produce energy/heat with this biogas.
- Residential: Sport complex: Replacement of diesel/butane boiler for biomass boiler to supply heat.
- Waste: Waste treatment facility: Production of biofuel by flash pyrolysis of solid waste.
- Industry: Manufacturer of beverage cans: Implementation of new processes to reduce heating needs.
- Transport: Chemical company: Modal shift for raw materials transport from road to rail.

- F-gasses: Supermarkets: Substitution of fluorinated coolants with high GWP for other with lower/non GWP.

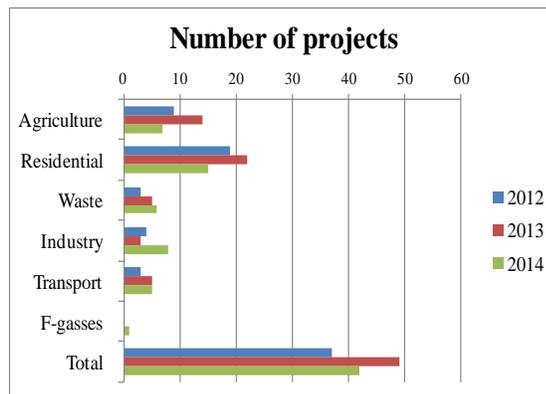
Project selection: The funding is granted based on a payment for ton of CO₂-eq reduced. To be eligible, projects must be developed in Spain; to ensure additionality (not required by other sectoral regulation); must reduce emissions from non-ETS sectors; and they must have measurable and verifiable emission reductions so they can be reflected in the national GHG inventory. Applicants must send an initial project concept; then for shortlisted projects a more detailed project design document. There are clear guidelines for the concept (project idea note); for the design document; methodologies to estimate GHG reductions ex ante and ex post; assessment criteria; verification manual.



Monitoring: Verified emission reductions of each project achieved during the first four years of the project are acquired (performance-based finance inspired by Kyoto project based mechanisms).

Summary of FES-CO2 results:

Call	Project Ideas	Pre-selected	Contracts	PoA	Meth.	VERs	Price
2012	194	119	37	-	10	0.80 M	7.1
2013	187	137	49	19(67)	-	0,97 M	7.1
2014	106	80	42	21(44)	3	0.84 M	7.1
2015	120	103	tbc	tbc	3	tbc	9.7



In brief, FES-CO₂ is an effective tool to achieve measurable emission to meet Spain's GHG emission reduction targets for the period 2013-2020. It supported a significant number of projects and beneficiaries show steady interest over time, and provided incentives for Spanish

companies which operate in the climate sector. It also covers a broad and balanced regional distribution and all of the non-ETS sectors. However, the involvement of the private sector is key in the transformation of the Spanish industry and the reduction of CO₂ emissions.

There are several other climate change programs

- PIMA Aire: Subsidies for replacing vans for less emitting models; also purchasing electric bicycles (€9.6 million for PIMA Aire4, €40 million aprox in total)
- PIMA SOL: Emissions reductions bought by the Government when hotels are refurbished to improve energy efficiency (€5.2 million, EIB to provide financing)
- PIMA Tierra: Subsidies for replacing agricultural tractors for less emitting models: €5 million
- PIMA Residuos: Subsidies in waste-related projects: €8.2 million
- PIMA Empresa: Emission reductions are bought by the government when enterprises reduce their carbon footprint - €10 million, under preparation.

ANNEX 2: Experience of Romanian organizations in managing grant making and loan programs

EXPERIENCE OF CIVIL SOCIETY DEVELOPMENT FOUNDATION (FDSC)

Year of setting up: 1994, with support from EC under the first Phare program for Romania.

Legal set-up and mission: independent NGO, mission to develop civil society (grant maker, advocacy for improved legislation, support).

Organizational structure and management of funds: - For EEA grants.

Board membership: 9 members, which meet regularly (about 5 times a year).

Board responsibilities: Oversight / approval of grant strategies; agreement with donors on general conditions.

Beneficiaries: mainly NGOs, but also a program focusing in local authorities.

Source of funds: Institutional donors: Phare Program; World Bank, Charity Know How, USAID, Romanian Government through the Ministry of Finance, Government of Norway, Liechtenstein and Island and Switzerland. (The last two programs are still in implementation). Private: CEE Trust, Civic Innovation Fund, funds from Romanian American Foundation, corporate - Petrom, Raiffeisen Bank.

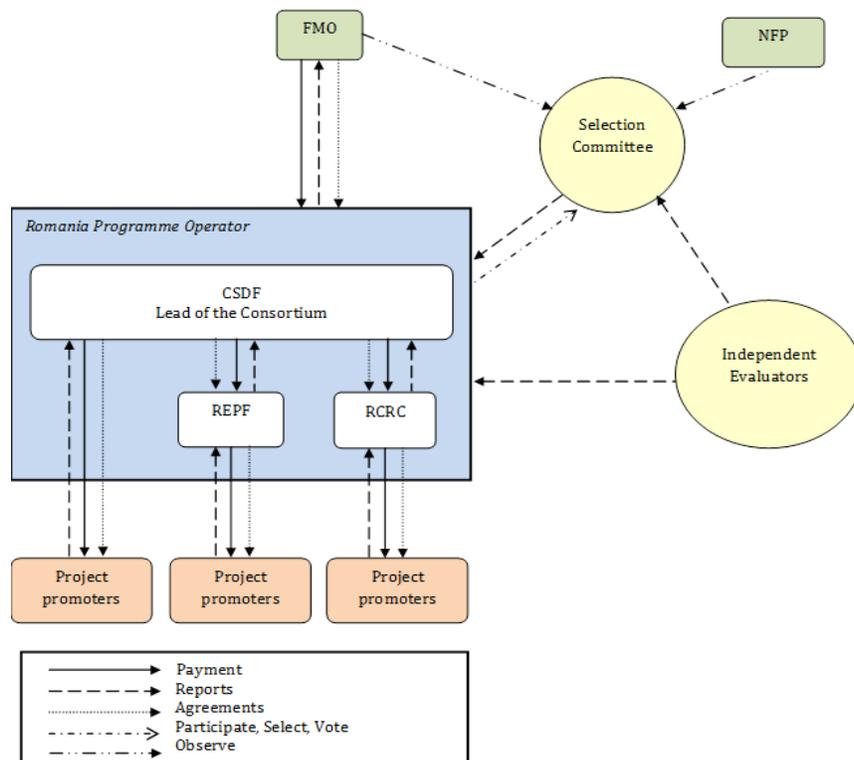
Amounts and no. of projects: Funds managed so far amounting to 150 million Euro. Current programs: EEA fund (Norway, Liechtenstein and Island) - 36 million Euro; Swiss Government - 25 million Euro, 2,000 projects (currently, 500).

Types of projects financed: civil society development (NGOs, coalitions).

Support instrument: Grants, co-financing from beneficiaries required. Projects must demonstrate sustainability after end of grant.

Financing agreements: relationship between FDSC and donor governments is set up through various documents: Memorandum between the two countries followed by guide (similar in all CEE countries where they are operating). FDSC competed in tenders launched by donor governments with proposal on how to develop NGO programs in Romania. FDSC develops an application guide for beneficiaries and procedures based on donors' requests.

Project selection: selection of beneficiaries through transparent, competitive tender. Project evaluation is done by external evaluators. FDSC checks evaluators are not in conflict of interest with potential beneficiaries (for example did not work in the last 5 years with the NGOs). Donors not part of project selection committee, but consulted.



Monitoring and evaluation: regular reporting requirements (financial, output and outcome indicators), communication with beneficiaries, minimum 10% visiting financial audits, 15% desk financial audit.

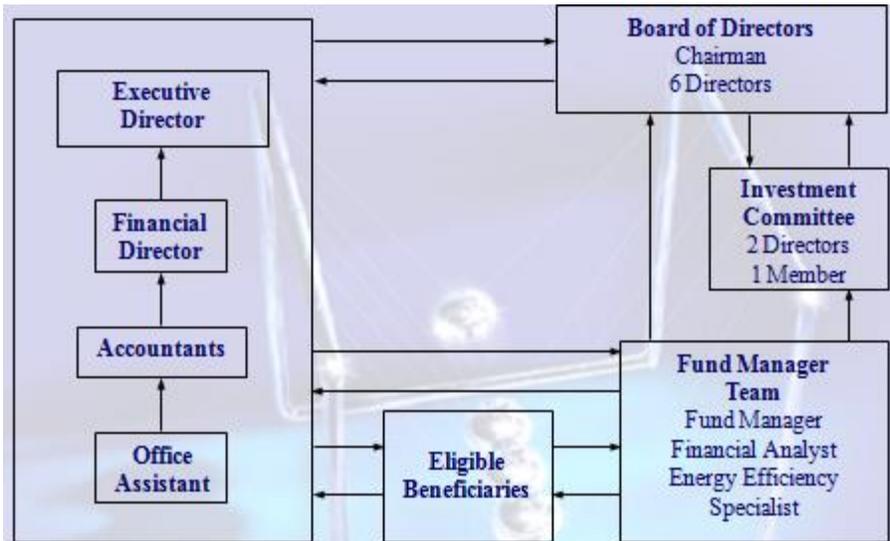
Staff: 50 persons (including auxiliary) with different specializations (database management, IT, communication, advocacy, lawyers etc).

EXPERIENCE OF ROMANIAN ENERGY EFFICIENCY FUND (FREE)

Year of setting up: GEO 124/2001 and Law 287/2002, capitalization GEO 188/2002.

Legal set-up and mission: Independent, financially autonomous entity to promote energy efficiency through revolving loans.

Organizational structure:



Board: diverse membership - banks, corporate, Ministry of Environment, Ministry of Industry / Energy; technical experts. Responsibilities: set up internal rules, financing policy, investment strategy, budget, approval of evaluation and selection criteria for projects, approval of business plan for Fund Manager.

Executive responsibilities: management of activities, draft strategy and budget, monitoring of projects and financing, contracting beneficiaries, reporting to board.

Fund manager: preparation of business plan (investment policy, marketing, best opportunities); monitoring of project portfolio and future investment prospects, due diligence, negotiations, disbursement recommendations.

Investment Committee: selects and recommends projects for approval.

Beneficiaries: Private or public-private companies (industry, transports, agriculture, services etc); Local authorities for public utilities (district heating, public lighting, water, transport); Public buildings (universities, schools, hospitals, etc.); Municipal companies (power and heat generation for covering own demand).

Source of funds: initial capital used for revolving loans.

Amounts: 8 million USD.

Number of projects: 154 (34 active), 60 mil. USD.

Types of projects financed: Technological modernizations, heat recovery, RES use in industrial processes; small and medium scale co-generation and tri-generation; RES at local level; thermal rehabilitation of public buildings; promotion of RES to heat & power; rehabilitation of district and

local heating systems; use of RES to heat; metering; energy management in administrative buildings; public lighting, modernization of water supply systems, promotion of RES to power.

Support instrument: revolving loans.

Financing agreements: Originally, capitalized from WB loan as part of international agreement between Government and IBRD (GEO 188/2002).

Project selection: selection of beneficiaries through transparent, competitive tender. Compulsory eligibility criteria: environment permit, certain industries excluded (tobacco, etc.), economic benefits at least 50% from energy savings, 20% co-financing. Flexible (board-decided) criteria: positive financial results or indicating potential and commitment in investment financing; projects above US\$ 100.000; investment payback no longer than 4 (5) years; investments in simple and verified technologies.

Monitoring and evaluation: monitoring of implementation (financial and execution), emission reduction, energy savings.

EXPERIENCE OF MDRAP - SWISS-ROMANIAN COOPERATION PROGRAMME

Year of setting up: 2010

Legal set-up and mission: grant administered through MFP and MDRAP to reduce economic and social disparities within the enlarged European Union - Focus Area 4 „Improvement of the Environment”.

Objective 1 – Sustainable Energy management in Romanian Cities.

Objective 2 - Modernization in environment, energy and public transport - Metrorex S.A.

Organizational structure:

- **State Secretariat for Economic Affairs (SECO)** - Structure of the Swiss Federal Council in charge with the implementation of the Swiss-Romanian Cooperation Programme
- **Swiss Contribution Office (SCO)** - office setup within Swiss Embassy in Bucharest, contact point between the Swiss part (SECO) and the Romanian part (NCU) on official information related to programme implementation
- **National Coordination Unit (NCU)** - Romanian unit in charge of the coordination of the Swiss-Romanian Coop Programme (in Ro, Ministry of Public Finance)
- **Intermediate Body (IB)** - MDRAP is IB for the implementation of Focus Area 4, acts under the responsibility of the NCU with regard to the EAs in the project implementation
- **Executive agencies (EA)** - municipalities mandated to implement the projects financed within Swiss-Romanian Cooperation Programme

Beneficiaries:**Objective 1:**

1. *Investment projects*: 4 municipalities, selected by evaluating applications, approved by SECO decisions. 9 final projects proposals (Swiss grant 32 million CHF):
Arad - 2 projects: District heating and public lighting
Brasov - 2 projects: modernization of public buildings, district heating in Tractorul residential area
Suceava - 2 projects: public lighting, electric vehicles in public transport
Cluj - 3 projects: public lighting and lighting in public buildings; replacement of diesel with electric buses; thermal rehabilitation of pre-university units.
2. *European Energy Award (EEA)* - quality management and certification system for municipalities committed to sustainable municipal energy, climate and transport policies and covers all proven energy and climate protection measures. EEA is up to 350,000 CHF grant + 15% co-financing.
3. *Sustainable Energy Action Fund (SEAF)*:
 - a. to mainstream EEA (incentive for territorial administrative units in order to be certified by the national organization ROEEA established to institutionalize the concept of EEA in Romania)
 - b. actions and the financing of small projects on sustainable energy in communities (cities) poor / underdeveloped.

Objective 2:

Metrorex, Pre-Feasibility and Feasibility Studies for the construction of the Metro Line 4.

Source of funds: Swiss government.

Amounts: 49.7 million CHF for Focus Area 4 „Improvement of the Environment”.

Support instrument: grant.

Financing agreements: Framework Agreement between Swiss Federal Council and Government of Romania concerning the implementation of the Swiss – Romanian Cooperation Programme to reduce economic and social disparities within the enlarged European Union, signed in 2010, approved by Government Decision 1065/2010. Swiss Contribution (grant) for Romania is in amount of 181 million CHF, of which 49.7 million CHF for Focus Area 4 „Improvement of the Environment”.

Delegation agreement (465.228/969.119/2011) - agreement between NCU and IB by which NCU delegates tasks to the IB for project implementation.

ANNEX 3: Proposed eligibility criteria for beneficiary and selection criteria for project in the frame of Climate Investment Program

ELIGIBILITY CRITERIA FOR BENEFICIARY:

- beneficiary is a Romanian juridical or individual person eligible for the call for proposal open, as it is described in the application guide;
- beneficiary has the main responsibility for organization and operation of the project activities and for assuring the sustainability of the installed equipment and results;
- beneficiary is not under bankruptcy procedure and has no legal claims/disputes regarding its property or ownership rights;
- in case of partnership, beneficiary needs to present an assessment of the added value of the partnership and the role/input of the each partner in project implementation;
- if beneficiary is a juridical person:
 - beneficiary has experience in implementation of investment project;
 - beneficiary has resources for project implementation with clear established responsibilities;
- for beneficiaries that are individual persons (e.g., application for housing retrofit or small renewable project), only the proof of creditworthiness of the individual is required.

SELECTION CRITERIA FOR PROJECT:

- project fulfils the requirements of the CIF's call of proposals and respect the principle of additionality of funding;
- project contributes to the implementation of the Climate Change National Action Plan 2016 – 2020 and focuses on emission reduction or adaptation to climate change (as per application guide);
- project has detailed implementation plan;
- project has feasible financial plan and should prove the availability of required level of own financing to complement the grant/subsidy;
- requested amount of funding is planned to be used in efficient manner and estimated costs are correlated with the implementation activities and needed resources;
- specific objectives, activities and results are sustainable, correlated and have clear monitoring indicators;

- estimated results corresponds to the beneficiary's needs and the modalities of addressing those needs are suitable for reaching the specific objectives;
- estimated project results are feasible and could be achieved in the proposed timeframe;
- project has clear targets and suitable implementation timetable, which is correlated with the complexity of the activities and resources;
- project complies with existing environmental regulations;
- coherent and transparent procurement plan is developed.