

# Regional climate cooperation

## ECRAN Environment and Climate Regional Accession Network CROATIA

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# Croatian Legal Framework

- Air Protection Act (Official Gazette, No.130/2011, 47/14) – Chapter VIII of the act is related to monitoring greenhouse gas emissions and measures for mitigating and adapting to climate change
- Regulation on the Monitoring of Greenhouse Gas Emissions, Policies and Mitigation measures in the Republic of Croatia (Official Gazette, No. 87/2012)
- Ordinance on Greenhouse Gas Emissions Monitoring in the Republic of Croatia (Official Gazette, No. 134/2012)
- Decision on the adoption of the Plan for the protection of air, ozone layer and climate change mitigation in the Republic of Croatia for the 2013 – 2017 period (Official Gazette, No. 139/2013)
- Decision on the establishment of the Committee for inter-sectoral coordination for a national system for monitoring greenhouse gas (Official Gazette, No. 6/2014)



# EU Legislation Important For Monitoring and Reporting

- Commission Implementing Regulation (EU) No 749/2014 of 30 June 2014 on structure, format, submission processes and review of information reported by Member States pursuant to Regulation (EU) No 525/2013 of the European Parliament and of the Council
- Commission delegated regulation (EU) No 666/2014 establishing substantive requirements for a Union inventory system and taking into account changes in the global warming potentials and internationally agreed inventory guidelines pursuant to Regulation (EU) No 525/2013 of the European Parliament and of the Council
- Regulation (EU) No 525/2013 of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change
- Decision (EU) No 406/2009/EC of the European Parliament and of the Council on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020
- Decision (EU) No 529/2013/EU of the European Parliament and of the Council on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities



# Institutional and Organizational Structure

- Institutional arrangement for inventory preparation in Croatia is regulated in Part II of the Regulation on the Monitoring of Greenhouse Gas Emissions, Policies and Mitigation Measures in the Republic of Croatia (OG 87/2012) entitled National system for the estimation and reporting of anthropogenic greenhouse gas emissions by sources and removals by sinks
- Decentralized and out-sourced with clear tasks breakdown between participating institutions including Ministry of Environmental and Nature Protection (MENP), Croatian Environment Agency (CEA) and competent governmental bodies responsible for providing of activity data
- The preparation of inventory itself is entrusted to Authorized Institution which is elected for three year period by public tendering



# Institutional and Organizational Structure

- The Ministry of Environmental and Nature Protection (MENP) is the central national authority responsible for maintaining the National System
- MENP is a national focal point for the UNFCCC, with overall responsibility for functioning of the National system such as:
  - communication with the UNFCCC, EU, control of methodology for emission calculation and greenhouse gas removal, approval of the GHG Inventory Report
- Croatian Environment Agency (CEA) is responsible for: organization of the GHG Inventory preparation, collection of activity data, development of QA/QC plan, archiving of all documents used for inventory planning, preparation, QA/QC, selection of Authorized Institution etc.



# Institutional and Organizational Structure

- Authorized Institution is responsible for preparation of inventory (emission calculation of all anthropogenic emissions from sources and removals by greenhouse gas sinks, identification of key categories of greenhouse gas emission sources and removals, recalculation of greenhouse gas emissions and removals, cooperation with the Secretariat's ERTs for the purpose of technical review and assessment/evaluation of the inventory submissions etc.)

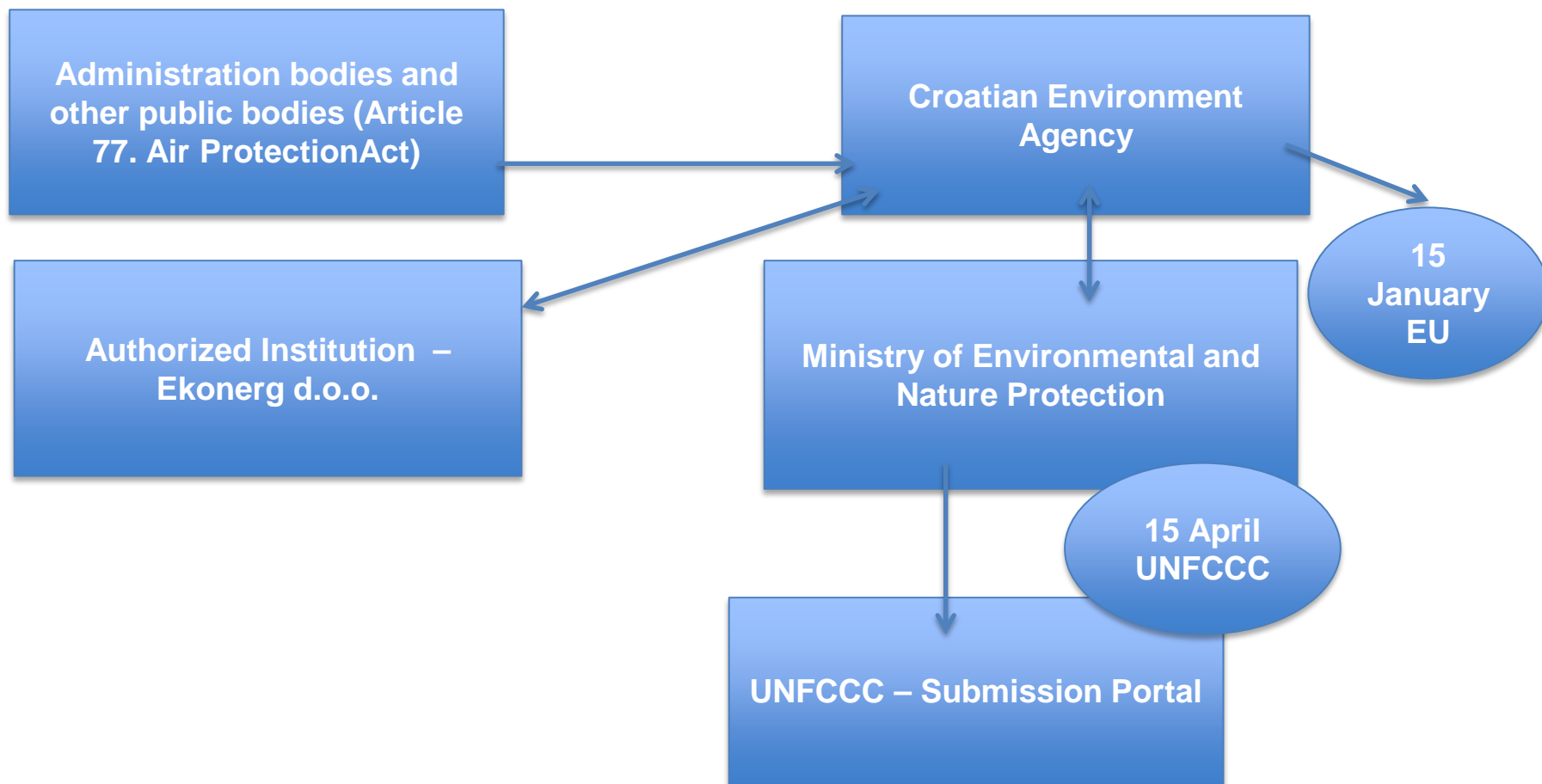


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# Communication Scheme



# Completeness

- Croatian inventory report for 2014 consists of the emission estimates for the period from 1990-2012
- All sectors and subsectors are covered
- All gases as well
- Inventory is complete in relation to the coverage of years, sectors, categories and gases



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## Non-estimates (NEs)

- The summary of the “not estimated” sources/sinks is given in Annex 4 of National Inventory Report for 2014
  - Energy sector – does not have NEs
  - Industrial Processes - some IPCC categories have not been reported because IPCC Guidelines do not provide the methodology for the calculation of emission



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# Non-estimates (NEs)

GHG	Sector <sup>(2)</sup>	Source/sink category <sup>(2)</sup>	Explanation
CO2	2 Industrial Processes	2.A.5 Asphalt Roofing	IPCC Guidelines do not provide methodology for the calculation of CO2 emission.
CO2	2 Industrial Processes	2.A.6 Road Paving with Asphalt	The IPCC Guidelines do not provide methodology for the calculation of CO2 emission.
CO2	2 Industrial Processes	2.B.5 Sulphuric acid production	IPCC Guidelines do not provide methodology for the calculation of CO2 emission.
CH4	2 Industrial Processes	2.A.7.1 Glass Production	The IPCC Guidelines do not provide methodology for the calculation of CH4 emission.
CH4	2 Industrial Processes	2.C.1.1 Steel	The IPCC Guidelines do not provide methodology for the calculation of CH4 emission.
CH4	2 Industrial Processes	2.B.5 Sulphuric acid production	IPCC Guidelines do not provide methodology for the calculation of CH4 emission.
N2O	2 Industrial Processes	2.A.7.1 Glass Production	The IPCC Guidelines do not provide methodology for the calculation of N2O emission.
N2O	2 Industrial Processes	2.B.5 Sulphuric acid production	IPCC Guidelines do not provide methodology for the calculation of N2O emission.



## Key categories

- Key category analysis is in line with IPCC GPG
- Tier 1 and Tier 2 key category analysis
  - the key category analysis was determined using both approaches: including and excluding LULUCF
  - for 1990 and 2012



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# Key categories

IPCC Source Categories	Direct GHG	Criteria for Identification			
		Level		Trend	
		excl. LULUCF	incl. LULUCF	excl. LULUCF	incl. LULUCF
ENERGY SECTOR					
CO2 Emissions from Stationary Combustion: Coal	CO2	L1e	L1i	T1e, T2e	T1i, T2i
CO2 Emissions from Stationary Combustion: Oil	CO2	L1e, L2e	L1i	T1e, T2e	T1i, T2i
CO2 Emissions from Stationary Combustion: Gas	CO2	L1e, L2e	L1i	T1e, T2e	T1i, T2i
Mobile Combustion: Road Vehicles	CO2	L1e, L2e	L1i	T1e, T2e	T1i, T2i
Mobile Combustion: Aircraft	CO2				T1i, T2i
Combustion: Agriculture/Forestry/Fishing	CO2	L1e	L1i		T1i, T2i
Fugitive Emissions from Coal Mining and Handling	CH4				T2i
Fugitive Emissions from Oil and Gas Operations	CH4	L1e, L2e	L1i, L2i	T1e	T1i
Fugitive Emissions from Oil and Gas Operations	CO2	L1e	L1i		
INDUSTRIAL PROCESSES					
CO2 Emissions from Cement Production	CO2	L1e	L1i	T1e, T2e	T1i, T2i
CO2 Emissions from Ammonia Production	CO2	L1e	L1i	T1e, T2e	T1i, T2i
CO2 Emissions from Ferroalloys Production	CO2			T1e, T2e	T1i, T2i
CO2 Emissions from Aluminium Production	CO2			T1e, T2e	T1i, T2i
N2O Emissions from Nitric Acid Production	N2O	L1e, L2e	L1i, L2i		
HFC and PFC Emissions from Consumption in Refrigeration and Air Conditioning Equipment	HFC	L1e, L2e	L1i, L2i	T1e, T2e	T1i, T2i
PFC Emissions from Aluminium Production	PFC			T1e, T2e	T1i, T2i



## Critical Issues

- Energy sector:
  - Tier 1 approach for key sources
  - On long term basis, inventory team is planning apply country-specific carbon content values and oxidation factor values to estimate emissions for the main fuel types
  - fugitive emission from natural gas is key source and implementation of rigorous source-specific evaluations approach (Tier 3) is necessary



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## Critical Issues

- Industrial Processes
  - Nitric acid production- more detailed information about using direct emission measurement ( $\text{N}_2\text{O}$ ) for calculation of national emission factor are planned to be investigated
  - Ferroalloys production- provide more details on its plan to increase the transparency and accuracy of its estimates by obtaining AD for ferroalloys production to replace the interpolated data



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# Thank you for your attention!



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