

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Regional Training Seminar on assessment of GHG Inventories in Agriculture

Zagreb, Croatia
21-22 June 2016

National System and Data collection for GHG estimation Agriculture Sector

Tatjana Obučina, Climate change Unit
Željko Crnojević, Soil and land Unit
Croatian Agency for the Environment and Nature

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Topics

- Croatian National System
 - Data Collection in Agriculture Sector
-

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

General information

- Croatia is an Annex I Party of the UNFCCC, from 1996,
 - Croatia ratified the Kyoto Protocol on April 27, 2007 and become a full Party on August 28, 2007
 - By accessing the European Union on 1 July 2013, the Republic of Croatia has implemented into its legal system obligations on reporting according to Regulation (EU) No 525/2013 of the European Parliament which includes:
 - ✓ Inventory report of GHGs emission (Preliminary NIR, NIR and Approximated NIR)
 - ✓ Policy and measures
 - ✓ Projections of anthropogenic GHGs emissions by sources and removals by sinks
-

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Submissions (last) on an annual basis are

- Last submitted Croatian Inventory of GHG emission is NIR 2016.
 - In this NIR, the reported period is 1990-2014
 - The methodologies used in the calculation of emissions are based on the 2006 IPCC Guidelines for National Greenhouse Gas Inventories
 - The calculation includes the emissions of the following GHGs: CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃ and indirect greenhouse gases: CO, NO_x, NMVOCs and SO₂
 - CO₂-eq is calculated by multiplying the emissions of every gas with corresponding GWP
 - The methodology for emission calculation could be described as a product of the particular activity data with corresponding emission factors.
 - GHG emission sources and sink are divided into five main sectors: Energy, IPPU, Agriculture, LULUCF and Waste.
-

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Submissions (last) on an annual basis are

National Inventory Report 2016, for the period from 1990 to 2014.

- ✓ on 15 January 2016 we submitted our CRF tables and draft NIR to the European Commission
- ✓ on 15 March 2016 - CRF tables, MMR table to EK
- ✓ on 25 March 2016 - NIR 2016 to EK
- ✓ on 5 April 2016 - NIR 2016 to UNFCCC
- ✓ on 31 May 2016 we submitted complete NIR 2016 (NIR, MMR table, KP) to EK
- ✓ on 15 June 2016 we submitted complete NIR 2016 under the UNFCCC and Kyoto Protocol

Initial Report of the Republic of Croatia for the second commitment period under the Kyoto Protocol was submitted on 15. June 2016.

Report on the implementation of policies and measures to mitigate climate change and Report on projections of greenhouse gas emission were submitted on 15 March 2015.

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Croatian legal framework

- Air Protection Act (Official Gazette, No.130/2011, 47/2014) – 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) - Part II
 - 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)
-

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Institutional arrangements

- Inventory preparation in Croatia is regulated in Chapter II of Regulation on the Monitoring of Greenhouse Gas Emissions, Policies and Mitigation measures in the Republic of Croatia (Official Gazette, No. 87/2012)
 - Inventory management and preparation in Croatia could be characterized as: **decentralized** , **out-sourced** with **clear tasks** breakdown between participating institutions which including: MENP, CAEN 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 (2016-2018)
-

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Institutional arrangements

- **Ministry of Environmental and Nature Protection (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 and GHG removal, calculations,
 - approval of the GHG Inventory Report,
 - submission to UNFCCC etc
 - **Croatian Agency for the Environment and Nature (CAEN)** is responsible for:
 - organization of the GHG Inventory preparation,
 - collection of activity data,
 - development of QA/QC Plan,
 - implementation activities QA/QC,
 - archiving of all documents which used for Inventory planning,
 - selection of Authorized Institution.
 - CAEN is responsible to the Reporting to the EC under MMR.
-

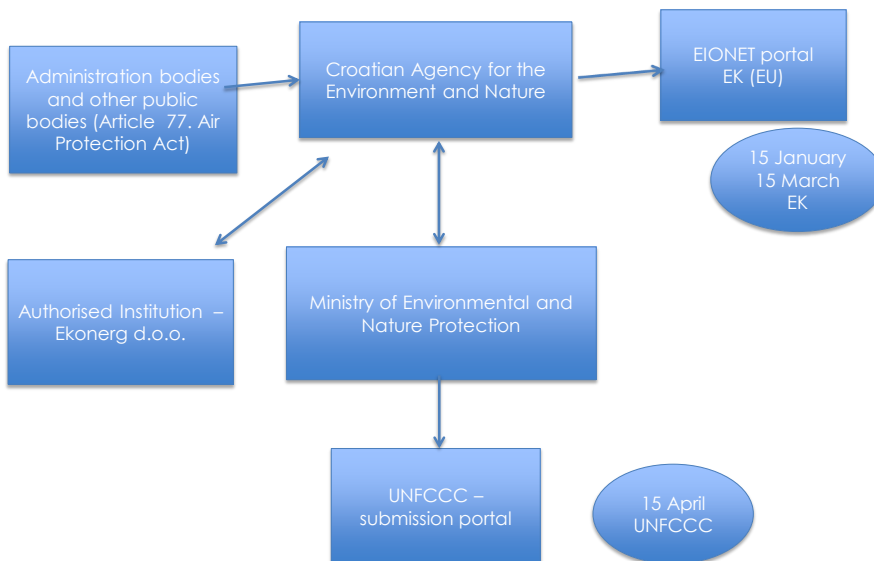
CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Institutional arrangements

- **Authorised Institution** is responsible for preparation of inventory, which include emission calculation in line with the methodology prescribed in new 2006 IPCC guidelines
- **Committee for inter-sectorial coordination for National System** was established by Government decision and includes representatives from various ministries with active role in streamlining activity data collection, provides recommendations for inventory improvement, *gives opinions on report and participates in the review of these reports*

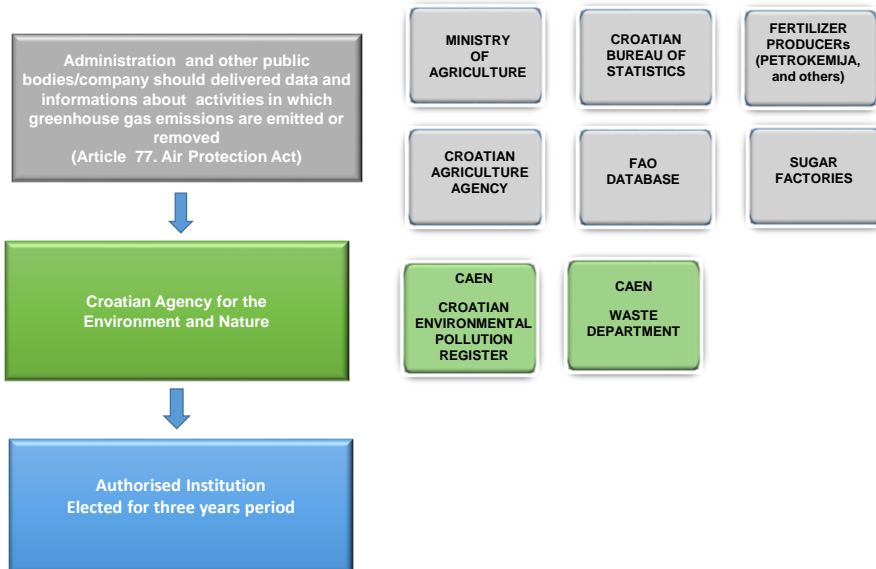
CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Communication Scheme



CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

Data Collection in Agriculture Sector



CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

CRF. 3. A HRV _GHG EMISSIONS: ENTERIC FERMENTATION IN DOMESTIC LIVESTOCK

AD and data source

Main document for collecting data is: Annual data Collection Plan (ADCP) for Agriculture Sector which containse source categories, activity, activity data, data source and competent authority.

Ministry of Agriculture is responsible for most of data.

Data suppliers are:

- Croatian Bureau of Statistics and FAO database: numbers of animals produces annually for all category , weight and milk yield for daily cattle
- Croatian Agriculture Agency: numbers of dairy cattle and horses

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

CRF. 3. B. HRV _GHG EMISSIONS: MANURE MANAGEMENT

AD and data source

Main document for collecting data is: Annual data Collection Plan (ADCP) for Agriculture Sector which containse source categories, activity, activity data, data source and competent authority.

Ministry of Agriculture is responsible for most of data.

Data suppliers are:

- Croatian Bureau of Statistics and FAO database: numbers of animals produces annually for all category
 - Croatian Agriculture Agency: numbers of horses, mules/asses
-

CROATIAN AGENCY FOR THE ENVIRONMENT AND NATURE

CRF. 3. D HRV _GHG EMISSIONS: AGRICULTURAL SOILS

AD and data source

Main document for collecting data is: Annual data Collection Plan (ADCP) for Agriculture Sector which containse source categories, activity, activity data, data source and competent authority.

Ministry of Agriculture is responsible for most of data.

Data suppliers are:

- Croatian Bureau of Statistics - data of used Synthetic fertilizers
 - Fertilizers producers (Petrokemija and others)- data of prodused and used Synthetic fertilizers
 - CAEN - sewage sludge applied to soils (2005-2014), cultivation of Organic Soils
-

CRF. 3. G

HRV _GHG EMISSIONS: LIMING

AD and data source

Main document for collecting data is: Annual data Collection Plan (ADCP) for Agriculture Sector which containse source categories, activity, activity data, data source and competent authority.

Data suppliers are:

- Sugar Factories in which lime has been prodused as byproduct
-

CRF. 3. H

HRV _GHG EMISSIONS: UREA APPLICATIONS

AD and data source

Main document for collecting data is: Annual data Collection Plan (ADCP) for Agriculture Sector which containse source categories, activity, activity data, data source and competent authority.

Ministry of Agriculture is resposible for most of data.

Data suppliers are:

- Croatian Bureau of Statistics (data of used Synthetic fertilizers)
 - Fertilizers producers (Petrokemija and others)- data of prodused and used Synthetic fertilizers
 - CAEN - sewage sludge applied to soils (2005-2014), cultivation of Organic Soils
-

Thank you

Contact:

Tatjana.obucina@azo.hr
