

## Regional Training Seminar on Assessment of GHG Inventories in Waste

24-25 Nov 2015, Sarajevo



This Project is funded by the European Union



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Entities and Brcko District manage environmental issues through laws, regulations and standards

BiH Ministry of Foreign Trade and Economic Relations has responsibility for coordination of activities and harmonizing of plans of the entities' governmental bodies and institutions at the international level in energy, environmental protection, climate change, natural resources



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## UNFCCC

- Bosnia and Herzegovina (BiH) ratified UNFCCC, in 2000
- The UNFCCC focal institution in B&H is the Ministry of Spatial Planning, Civil Engineering and Ecology of RS (NFP) – mutual agreement of both entities
- UNDP technical and organisational support (experts - public call) 1990-2001, 2010, 2011



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## Overview of National system

BiH is a decentralized country comprising two Entities:

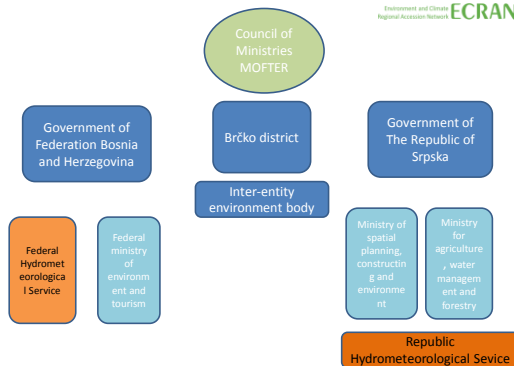
Republic of Srpska  
Federation of Bosnia and Herzegovina  
Brčko District



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- Initial National Communication (INC) - submitted in 2010
- Second National Communication - 2013
- Climate Change Adaptation and Low Emission Development Strategy – 2013
- First Biennial Update Report – 2014
- Intended national determined contributions, INDC, 2015
- Third National Communication, TNC ongoing
- Technology Needs Assessment, TNA, ongoing
- Nationally Appropriate Mitigation Actions, DNA/NAMA, established - 2015



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## Regulation

- Environment protection and climate change – environment and air protection laws in FBiH and RS

GHG inventory, MMR/525/2013

- Law on air protection in RS
- Law on air protection in FBiH



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## Waste sector-methodology

- During the preparation of INC, SNC, FBUR and TNC, capacities of domestic institutions (RHMI, FHMI) have been built
- Working group of two HMIs – GHG inventory B&H



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## Completeness

- Time series (2002-2013) developed for sources and gases:
  - Solid waste disposal sites ( $\text{CH}_4$ )
  - Wastewater treatment
    - Domestic and commercial wastewater ( $\text{CH}_4$ ,  $\text{N}_2\text{O}$ )
    - Industrial wastewater ( $\text{CH}_4$ )
  - Human sewage ( $\text{N}_2\text{O}$ )



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- According to the law, Official institution in the RS for creating and maintaining an Inventory of GHG is the Republic Hydrometeorological Service RS
- In Federation of Bosnia and Herzegovina there is no authorized Institution for creating Inventory GHG (Law regulation, Federal Hydrometeorological Service, Reference center for air emissions).
- At the level of BiH no institution for the inventory of GHG, and reporting to the UNFCCC GHG inventory includes integrated for the entire BiH



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## Key subsectors

- Methane emissions from:
  - **solid waste disposal sites (SWDS)**
  - **domestic and commercial wastewater treatment**



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## Critical issues

### Activity data and emission factors – major issues

- Annual MSW disposed to SWDS:
  - lack of the data for the period before 2006
  - low data quality – rough estimation of the quantity and type of disposed waste, SWDS accepting all kinds of waste (non-hazardous, hazardous, inert waste)
  - no documented information on SWDS management
  - lack of national data on MSW composition



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## Critical issues, cont.

### Activity data and emission factors – major issues

- Domestic and commercial wastewater
  - lack of the reliable data on type of ww handling systems/flows
  - lack of the data on the fraction of ww treated by the handling system (total/urban/rural population)
  - available data refer only to certain municipalities/regions



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## Progress made

- First time developed time series for the period 2002-2013
- Revision of the emissions for 2010-2012
- Use of the revised default values according to the IPCC 2006 GL
- First experimental estimates of the emissions from MSW disposal and Domestic Wastewater Treatment by the IPCC 2006 GL



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## Critical issues, cont.

### Activity data and emission factors – major issues

- Industrial wastewater
  - lack of the data on industrial ww generated and treated, in total and by industries
  - availability of country-specific data on Chemical Oxygen Demand (kg COD/m<sup>3</sup> wastewater)
  - assumptions based on the regional practice



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## Improvements needed

- Country-specific MSW composition
- Data on SWDS management, recovered methane
- Increased reliability of the data on MSW disposal
- Data on type of domestic and industrial ww treatments
- Identification of the most relevant industries and national COD values
- Data on waste management other than disposal (open burning)



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Thank you for your attention



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