

# FACILITATIVE SHARING OF VIEWS – BOSNIA AND HERZEGOVINA

3 December 2018

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# Presentation outline

## Part I: Summary of BUR and recent development

- ❖ National context
- ❖ GHG inventory
- ❖ Mitigation actions and effect
- ❖ Barriers and support needed and received

## Part II: Experience and lessons learned in participating in the ICA process

- ❖ Has participation in the ICA process raised the profile of climate actions at the domestic level?
- ❖ Has the BUR preparation enhanced domestic coordination/ domestic MRV in providing climate related information? If so, how?
- ❖ What's the value addition of the technical analysis of BURs by the team of technical experts?
- ❖ Has the ICA process supported the country to identify capacity building needs?
- ❖ Did the technical analysis supported the country to facilitate its reporting?

## Part III: Response to questions received

## **Part I: Summary of BUR and recent development**

# National context

## Institutional arrangements

BiH has prepared and submitted three national communications and two biennial update reports as follows:

- ❖ FNC 1990, adopted in 2010,
- ❖ SNC 1991-2001, adopted in 2013,
- ❖ FBUR 2010-2011, adopted in 2015,
- ❖ TNC and SBUR , 2002-2009, 2012,2013, 2014, adopted in 2017

BUR preparation:

The project “Bosnia and Herzegovina’s Third National Communication under the UNFCCC” was developed and implemented by UNDP in B&H in partnership with Ministry for Spatial Planning, Construction and Ecology of Republic of Srpska as focal point institution for the UNFCCC convention.

# National context

## **Institutional arrangements**

The Project engaged 48 local experts, most of them employed by relevant public institutions in Bosnia and Herzegovina:

- ❖ Hydrometeorological institutes (listed as authors of TNC and SBUR)
- ❖ Statistical offices
- ❖ Faculties of mechanical engineering and faculties of natural science
- ❖ Power utilities of RS and B&H
- ❖ Individual experts

Bosnia and Herzegovina adopted SBUR by the Council of Ministers of Bosnia and Herzegovina on 23.05.2017 and submitted its second BUR on 13 June 2017.

# National context

## National circumstances

- ❖ BIH decentralized country

On climate change the corresponding authorities at the level of entities and Brčko District are as follows:

- ❖ Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina (MOFTER) - coordinating activities and for international relations
- ❖ Ministry of Environment and Tourism of Federation of B&H
- ❖ Ministry of Spatial Planning, Civil Engineering and Ecology of Republic of Srpska (UNFCCC National Focal Point),
- ❖ Department for Communal Works of Brčko District (BD).

# GHG inventory

## Guideline

UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention pursuant to CP Decision 17 (2/CP.17, Annex III, section 3).

- ❖ GHG inventory
- ❖ Mitigation actions
- ❖ Monitoring, reporting, verification process

# GHG Inventory

## Methodology

- ❖ Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories
- ❖ Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories and Good Practice Guidance for LULUCF
- ❖ Inventory Software (NAAIS), developed by the UNFCCC Secretariat for Parties not included in Annex I to the Convention
- ❖ Tier 1 methodology
- ❖ NCV for coals, country specific
- ❖ Default EF



# GHG Inventory

## Activity data

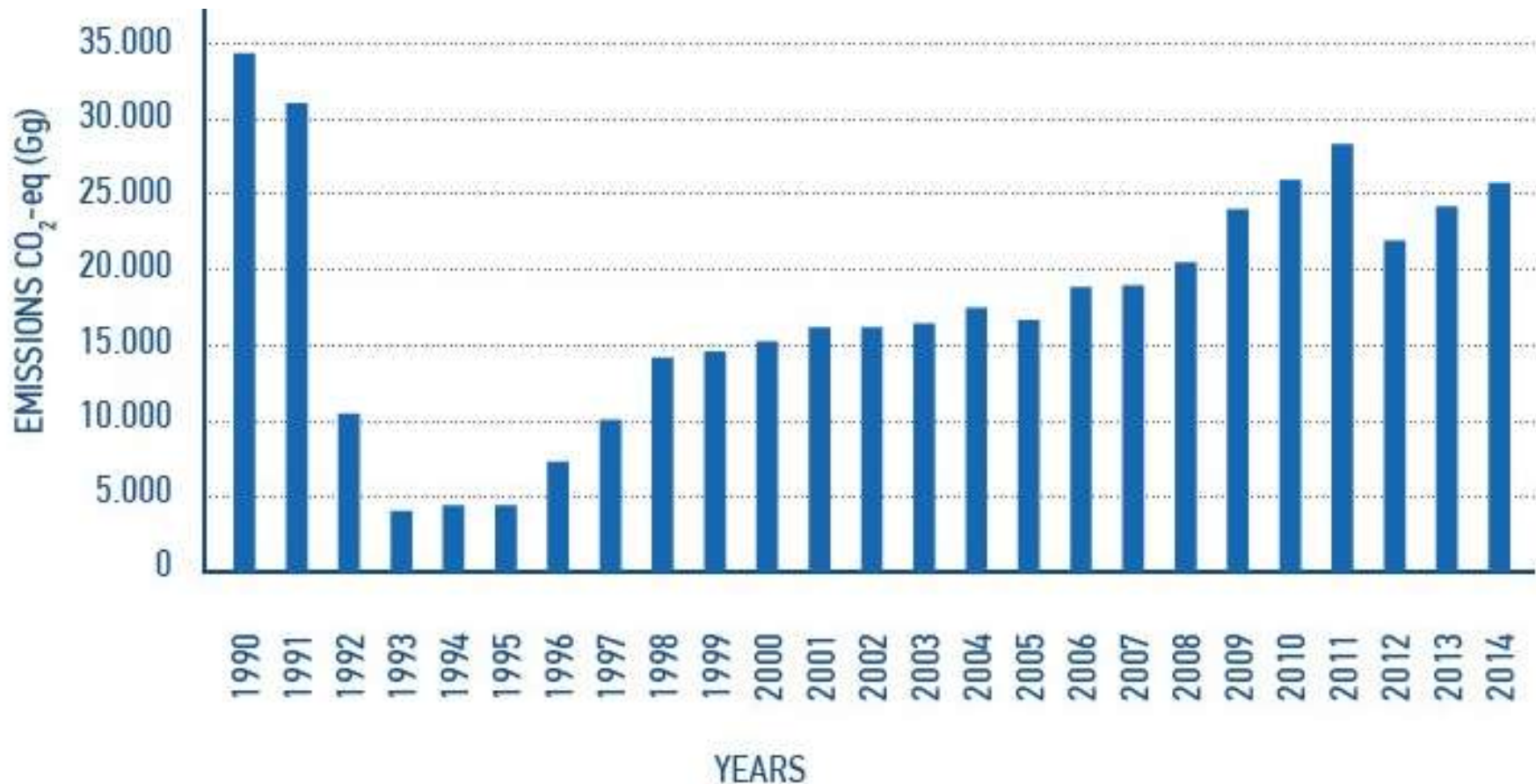
- ❖ Inventory year 2014 (time series 1990-2014)
- ❖ Continuation of the time series from TNC (2002-2009 and 2012-2013)
- ❖ GHG emissions and removals by sector and by gas covering the energy, industrial process, agriculture, land-use change and forestry (LULUCF) and waste sector
- ❖ Emissions of: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O and indirect GHGs (SO<sub>2</sub>, CO, NO<sub>x</sub> and NMVOC)
- ❖ Data providers, official statistical publications, questionnaires, sectoral development strategies (energy, agriculture etc.), approved projects, public papers, expert judgement
- ❖ National energy balance, 2014

# GHG Inventory

Total emissions of CO<sub>2</sub> eq (Gg)

1990: 34,043.49 GgCO<sub>2</sub>e (excluding LUCF); 26,619.9 GgCO<sub>2</sub>e (including LUCF)

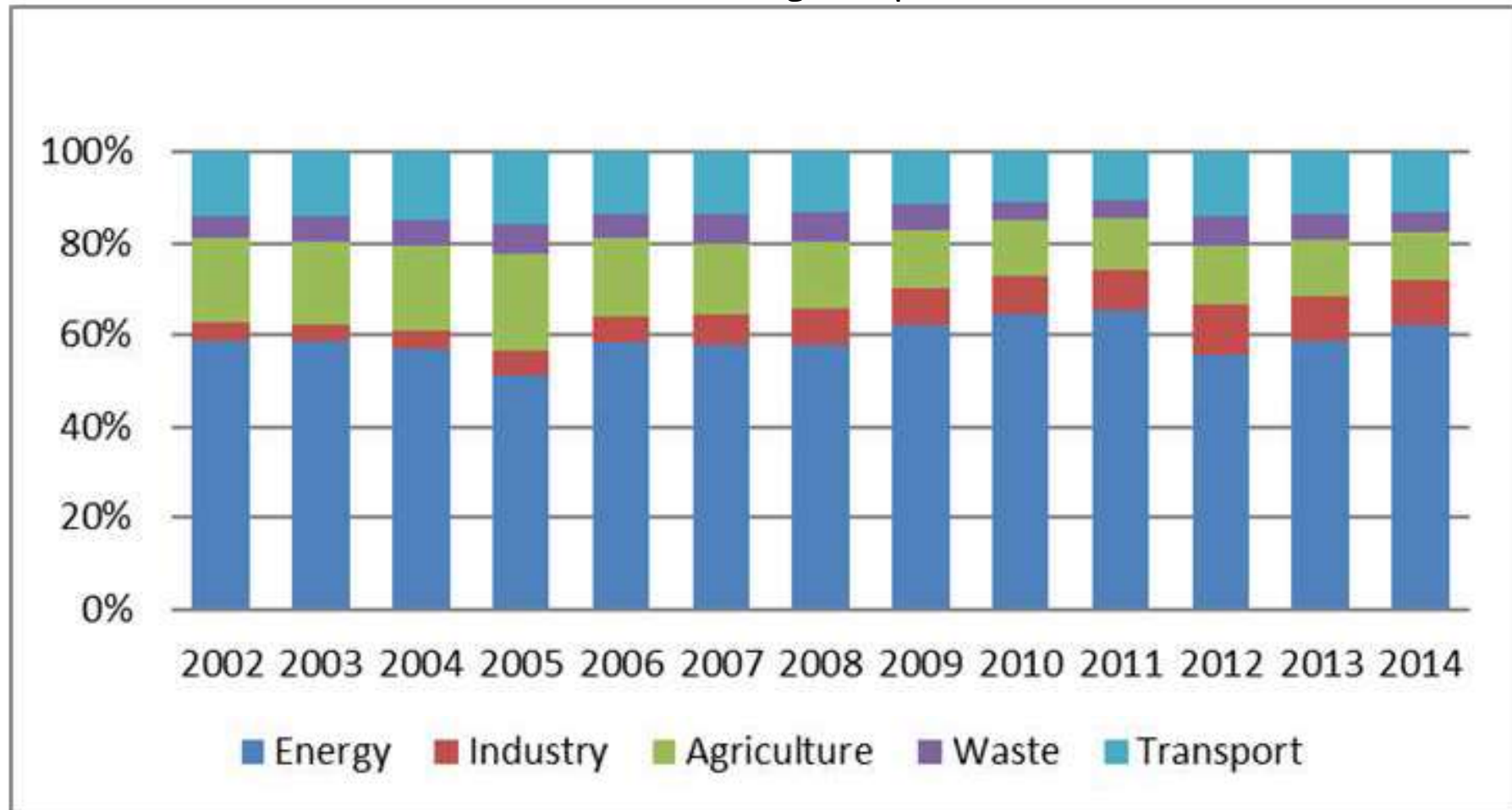
2014: 26,062.18 GgCO<sub>2</sub>e (excluding LUCF); 19,664.51 GgCO<sub>2</sub>e (including LUCF); 76.5%



# GHG Inventory

Share of each sector in total emissions of CO<sub>2</sub>eq (Gg)

The most significant source of CO<sub>2</sub> emissions is the energy sector which contributed with about 53% of total CO<sub>2</sub> emissions, followed by agriculture (14%), industrial processes (6%) and waste (5%). The share of emissions from other sectors in the total emissions during this period is about 22%.



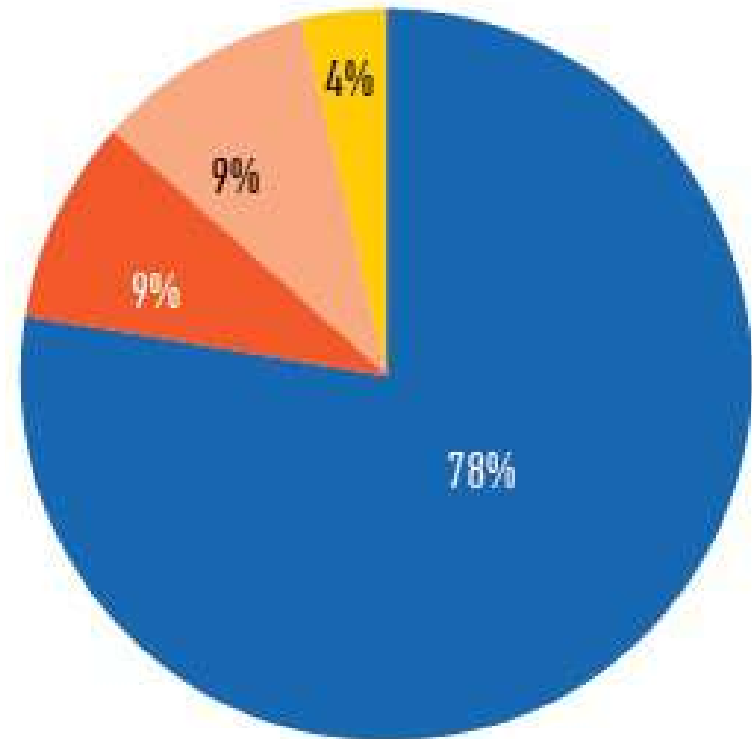
# GHG Inventory

Share of each sector in total emissions of CO<sub>2</sub>eq (Gg) in 2014

2014:

Total emissions: 26,062.18 Gg CO<sub>2</sub>eq  
21,711.93 Gg CO<sub>2</sub>  
119.96 Gg CH<sub>4</sub>  
5.91 Gg N<sub>2</sub>O

Energy sector: 19,734.33 Gg CO<sub>2</sub> eq  
Industrial process: 2,247.36 Gg CO<sub>2</sub> eq  
Agriculture 2,453.00 Gg CO<sub>2</sub> eq  
Waste: 966.00 Gg CO<sub>2</sub> eq  
LULUCF: 6,398.00 Gg CO<sub>2</sub> eq



■ Energy                      ■ Agriculture  
■ Industrial Processes      ■ Waste

# GHG Inventory

## Key category analysis

Key category 2014	Gas	CO <sub>2</sub> e (Gg)	Level assessment (%)	Cumulative total (%)
1A1 Energy Industries	CO <sub>2</sub>	14480,94	57	57
1A3b Road Transportation	CO <sub>2</sub>	3053,20	12	69
2C1 Metal Production	CO <sub>2</sub>	1459,50	6	75
1A4 Other sectors	CO <sub>2</sub>	1240,72	5	80
4D Agricultural Soils	N <sub>2</sub> O	1240,00	5	85
1A2 Manufacturing Industries and Construction	CO <sub>2</sub>	857,03	3	88
4A Enteric Fermentation	CH <sub>4</sub>	798,00	3	91
6A Solid Waste Disposal on Land	CH <sub>4</sub>	735,00	3	94
2A1 Cement production	CO <sub>2</sub>	728,10	3	97

# GHG Inventory

## Uncertainty analysis

Estimated uncertainty in the calculation of CO<sub>2</sub> emissions for 2014

Source category / GHG	Uncertainty of activity data (%)	Uncertainty of emission factors (%)	Total uncertainty (%)
Fuel combustion – coal, CO <sub>2</sub>	± 8	± 6	± 10
Fuel combustion – liquid fuels, CO <sub>2</sub>	± 12	± 5	± 13
Fuel combustion – natural gas, CO <sub>2</sub>	± 5	± 5	± 7

The estimated uncertainty of emissions from individual sources is a combination of the individual uncertainties of two elements of emission calculations:

- ❖ Uncertainties associated with emission factors (from published references or measurements); and
- ❖ Uncertainties associated with activity data.

# Mitigation actions and effects

## Mitigation actions

- ❖ Sectors  
electricity generation, district heating, buildings, transport, waste management, agriculture, and forestry
- ❖ Mitigation scenarios developed until 2040
- ❖ 25 measures identified and proposed
- ❖ Specific modeling involved a quantitative evaluation of time-series
- ❖ GHG emissions and considered taking into account three development scenarios:
  - S1 – a baseline scenario (“business as usual”),
  - S2 – a scenario that assumed partial implementation of mitigation actions (moderate)
  - S3 – an advanced scenario that assumed the implementation of a comprehensive set of mitigation actions (advanced)