

# Regional Training Seminar on assessment of GHG Inventories in the Forestry and Other Land Use

## **Bosnia and Herzegovina**

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This Project is funded by the European Union



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# Bosnia and Herzegovina Structure

**I – State level**

**Bosnia and Herzegovina**

**II – Entities**

**Federation of Bosnia and Herzegovina**

**Republic of Srpska**

**Brcko Distrikt**

**III – Cantons**

**10 Cantons**

**IV – Local level**

**Cities-municipalities**

**Cities-municipalities**



# Bosnia and Herzegovina

## Government and Ministries

### Council of Ministers of Bosnia and Herzegovina

Ministry of  
Defence

Ministry of  
Security

Ministry of  
Civil Affairs

District  
Brcko

Ministry of  
Justice

Ministry of  
Finance

Ministry of  
Foreign Trade  
and Economic  
Relations of  
Bosnia and  
Herzegovina

Ministry of  
Foreign  
Affairs

Ministry of  
Transport and  
Communicatio

Ministry of  
Human  
rights and  
refugees

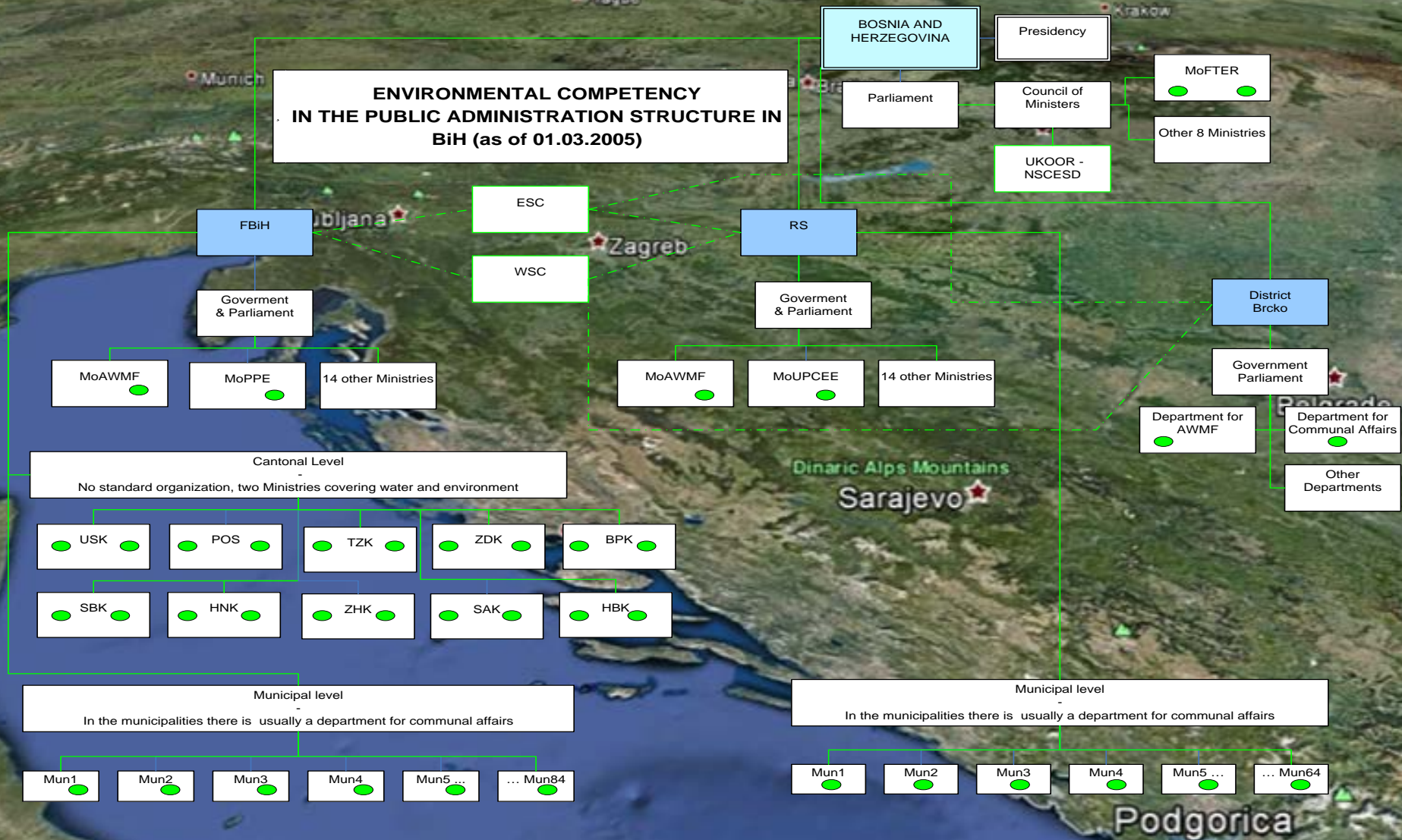
Next slide  
structure



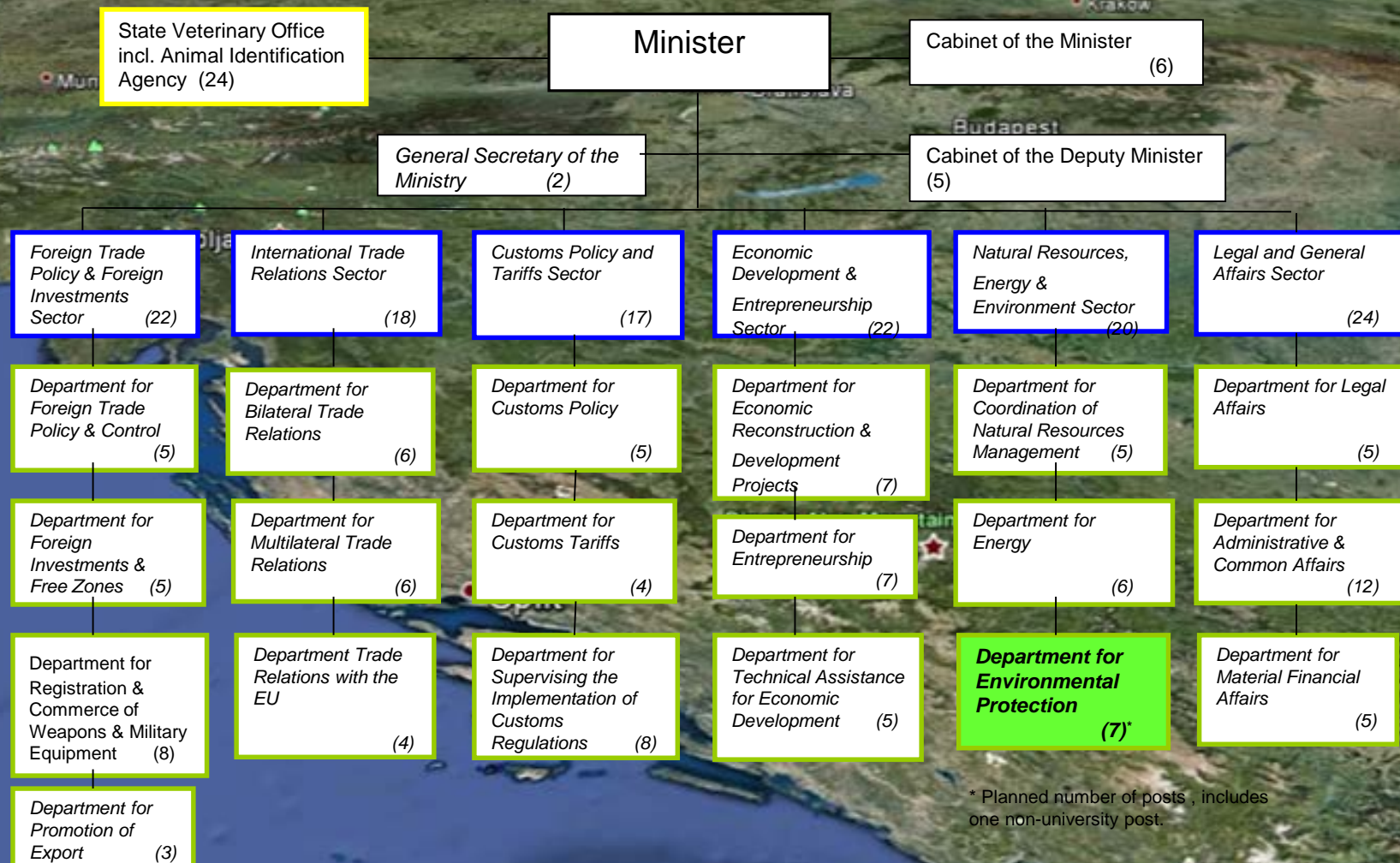


# Environmental Competency in the Public Administration structure in BiH

## ENVIRONMENTAL COMPETENCY IN THE PUBLIC ADMINISTRATION STRUCTURE IN BiH (as of 01.03.2005)



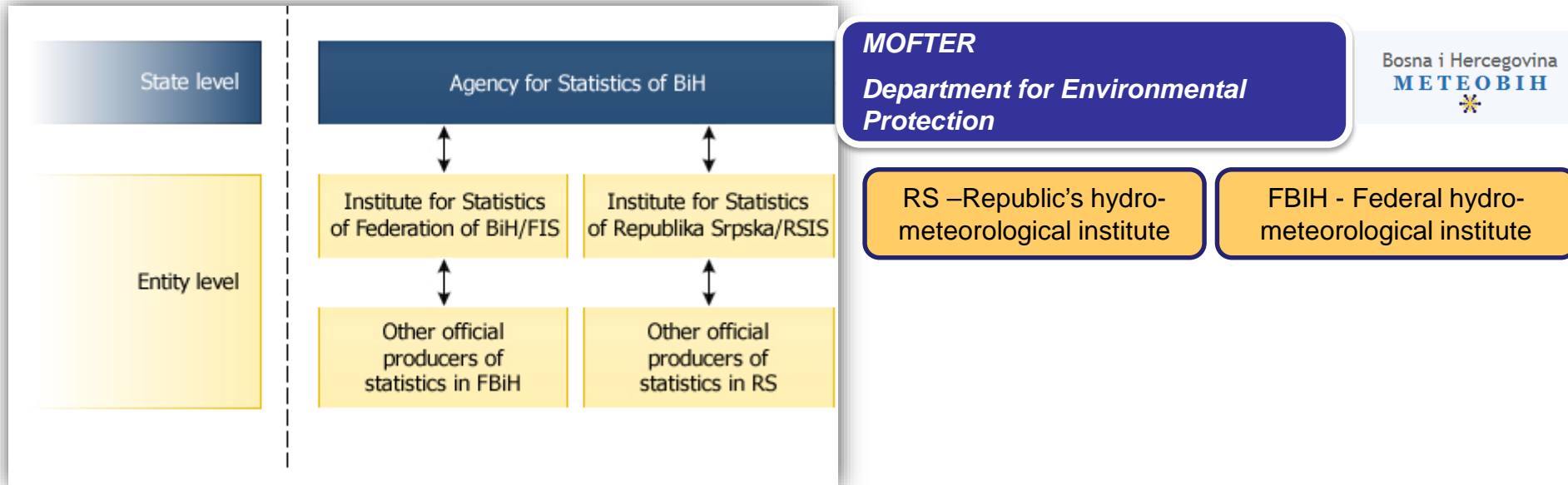
# Organisational chart of MoFTER



\* Planned number of posts, includes one non-university post.



# Data sources and identified gaps



Constraints and gaps for the the implementation of activities in compilation of inventory of greenhouse gas emissions, reduction of greenhouse gas emission, and climate change adaptation include:

**Institutional constraints:** There is an absence of both vertical and horizontal cooperation and coordination among competent institutions, and clear determination of competencies throughout

**Financial constraints:** Funds available under various international projects are modestly applied for, and the number of projects are limited

**Human resources constraints:** There is a shortage of personnel educated in the field of environmental protection within governmental structure.



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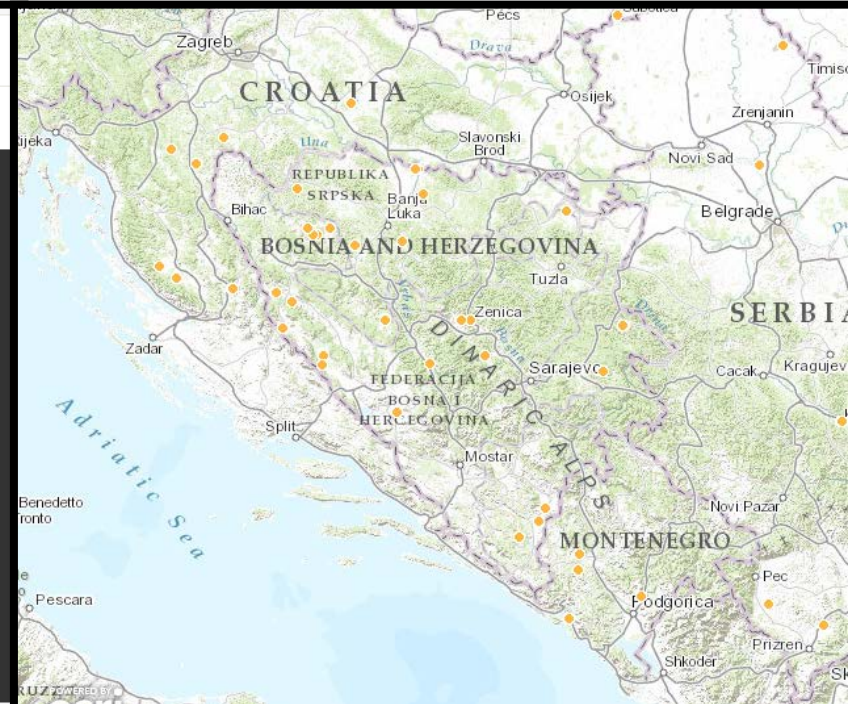
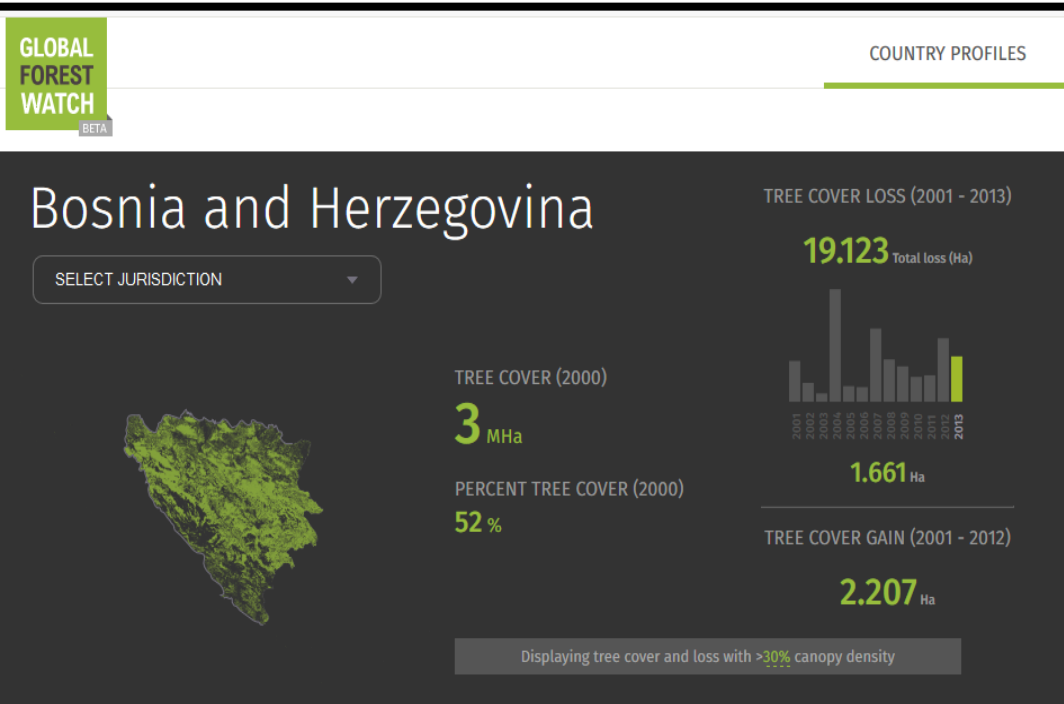
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## Data sources and identified gaps

- Due to activities such as illegal logging, ore mining, forest fires the area under forest cover has been shrinking rapidly; furthermore, a significant part of the forest cover has been declared as mined (numbers indicate approximately 10%) and has evident damage due to war activities. In addition, there are extensive unresolved property disputes and cases of illegal [and acquisition that are awaiting resolution due to complex legal mechanisms and administration.
- Currently around 50% of state-managed forests in BiH have been certified according to FSC Standards, and some have gone further to ISO certification in order to upgrade their operations and demonstrate their commitment to sustainable forest management.  
The legal and institutional framework covering forestry has been structured through the two entity governments.



# Data sources and identified gaps



Fire occurrence records

Bosnia has 118 million metric tons of carbon stocks in living forest biomass.

Suggested citation for data as downloaded from GFW

Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, S. V. Stehman, S. J. Goetz, T. R. Loveland, A. Kommareddy, A. Egorov, L. Chini, C. O. Justice, and J. R. G. Townshend. 2013. "Hansen/UMD/Google/USGS/NASA Tree Cover Loss and Gain Area." University of Maryland, Google, USGS, and NASA. Accessed through Global Forest Watch on (15-04-2015). [www.globalforestwatch.org](http://www.globalforestwatch.org).



Enviroment and Climate  
Regional Accession Network **ECRAN**

BOSNIA AND HERZEGOVINA  
1990  
Submission 2009

[illegible]

(2) See footnote 4 to Summary 1.A of this common reporting format

<sup>17</sup> See footnote 4 to Summary I.A. of this common reporting format

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO <sub>2</sub> emissions	CO <sub>2</sub> removals	Net CO <sub>2</sub> emissions / removals	CH <sub>4</sub>	N <sub>2</sub> O	Total emissions
<b>Land-Use Change and Forestry</b>	<b>CO<sub>2</sub> equivalent (Gg)</b>					
A. Changes in Forest and Other Woody Biomass Stocks	0.00	0.00	0.00			0.00
B. Forest and Grassland Conversion	0.00		0.00	0.00	0.00	0.00
C. Abandonment of Managed Lands	0.00	0.00	0.00			0.00
D. CO <sub>2</sub> Emissions and Removals from Soil	0.00	0.00	0.00			0.00
E. Other	0.00	0.00	0.00	0.00	0.00	0.00
Total CO <sub>2</sub> Equivalent Emissions from Land-Use Change and Forestry	0.00	0.00	-7,423.53	0.00	0.00	0.00
Total CO <sub>2</sub> Equivalent Emissions without Land-Use Change and Forestry <sup>(a)</sup>						34,043.49
Total CO <sub>2</sub> Equivalent Emissions with Land-Use Change and Forestry <sup>(a)</sup>						26,619.96

(a) The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry. Note that these totals will differ from the totals reported in Table 10s5 if Parties report non-CO2 emissions from LUCF

## Data sources and identified gaps

- Bosnia and Herzegovina reports data only for changes in the forest and other woody biomass stocks.
- Data needed for calculations of emissions/removals for other land categories are partly available but not enough adequate, consistent and complete. Other carbon pools are not included due to a lack of activity data accessibility.
- No enough accurate data on clearings (building of infrastructures), loss due to fire and unendorsed were available, therefore were not included into calculations.
- Data for changes in forest and grassland are not reported as for the abandonment of managed land and changes in carbon soil.
- There is needs to improve the quality of inventory and data collection for this sector.



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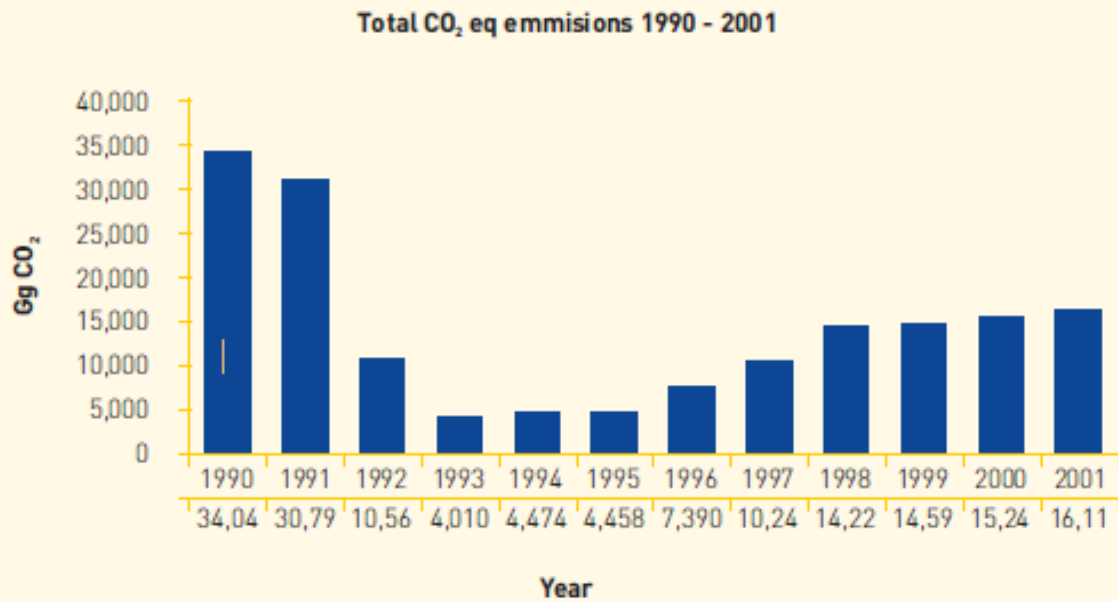
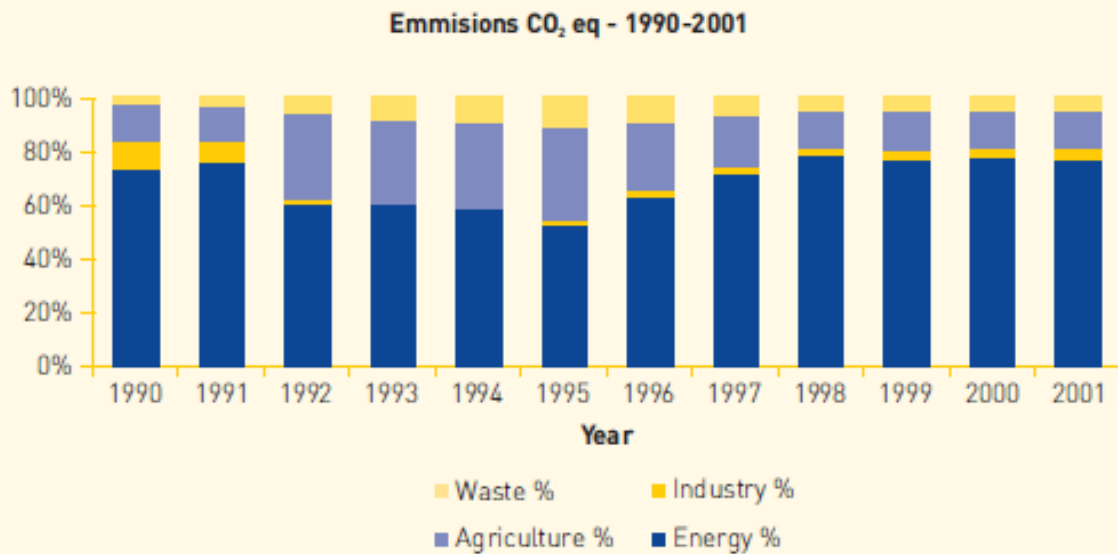


Chart 5. CO<sub>2</sub> emissions, 1990 – 2001



SECOND NATIONAL COMMUNICATION  
OF BOSNIA AND HERZEGOVINA  
UNDER THE UNITED NATIONS FRAMEWORK  
CONVENTION ON CLIMATE CHANGE

June 2013

All documents are available at [www.unfccc.ba](http://www.unfccc.ba)



# Estimates and Non-estimates (NE)

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Agriculture</b>	<b>4,023</b>	<b>3,439</b>	<b>1,241</b>	<b>1,405</b>	<b>1,624</b>	<b>1,852</b>	<b>1,956</b>	<b>1,989</b>	<b>2,102</b>	<b>2,026</b>	<b>2,203</b>
A. Enteric fermentation	1,607	1,719	461	514	633	710	775	789	814	777	777
B. Manure management	493	157	48	54	67	82	81	81	83	77	80
C. Rice cultivation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
D. Agricultural soils <sup>[2]</sup>	1,922	1,562	732	837	924	1,060	1,101	1,119	1,206	1,172	1,345
E. Prescribed burning of savannas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
F. Field burning of agricultural residues	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
G. Other	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
<b>5. Land use change and forestry (sinks)</b>	<b>-7,689</b>	<b>-10,147</b>	<b>-10,568</b>	<b>-10,081</b>	<b>-10,240</b>	<b>-9,367</b>	<b>-8,483</b>	<b>-8,307</b>	<b>-7,297</b>	<b>-7,302</b>	<b>-7,212</b>



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## Critical issues

- Lack of permanent funding for reporting
- Lack of relevant implementing regulations for data collecting requirements
- Lack of activity data needed for reporting to IPCC and fulfilling commitments under the UNFCCC (The problem lies in the fact that there are no clear instructions at the state level toward the entities for reporting and activity data.
- The availability of detailed activity data is still a major problem within this sector and application of higher Tier methodologies will be possible in the future after detailed research and adjustments of methods for data collection have been performed.
- Development of land use database needed for greenhouse gas inventories with aim to collect more quality data and to use complete land inventories represents an important task.
- Lack of personnel with the experience needed for preparation of data in agriculture and LUCF
- Lack of administrative capacity for the preparation of high quality subordinate legislation on activity data collection
- Lack of expert assistance to allow implementation of commitments under UNFCCC



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# Progress made

In cooperation with UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE, CONFERENCE OF EUROPEAN STATISTICIANS, the progress has been made to adhere to the document Recommendations on climate change related statistics, and substantial cooperation.

There are, among others, **EECCA CORE SET INDICATORS:**

**BIODIVERSITY**

**EECCA D1 PROTECTED AREAS**

**EECCA D3 - FORESTS AND OTHER WOODED LAND**

Agency for Statistics of Bosnia and Herzegovina has a leading institutional role in data collection for reporting at state level.

MOFTER and Agency for Statistics of B&H through inter-institutional cooperation and coordination managed to overcome many gaps.



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## Progress made

- CORINE database may be considered a unique, relevant source of information on land cover at the level of BiH;
- Custovic and Ljusa (2013) report a significant land use change between 1998 and 2006 in terms of agricultural land being transformed to artificial areas, discontinuous urban areas, semi-natural areas, water surface area, and into complex cultivation patterns based on CORINE land cover.
- This means that it is human-induced pressure – especially around cities and settlements – that leads to loss of natural and semi-natural area due to urbanization tendencies. However, in the absence of any updated maps and spatial planning instruments this development is not recorded in any registers and is out of sight of rural and spatial planning and development
- BiH the last official NFI data was on the 1964–1968 period
- The 2nd NFI was conducted 2006–2009, but still lacks proper publication up to this day.



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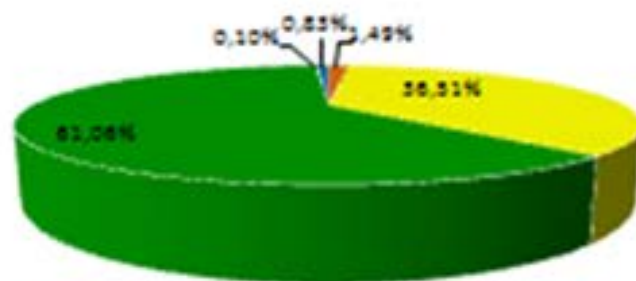
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## Land use changes and loss of soil

CORINE land cover 2006



CLC 2006  
CORINE land cover - I level

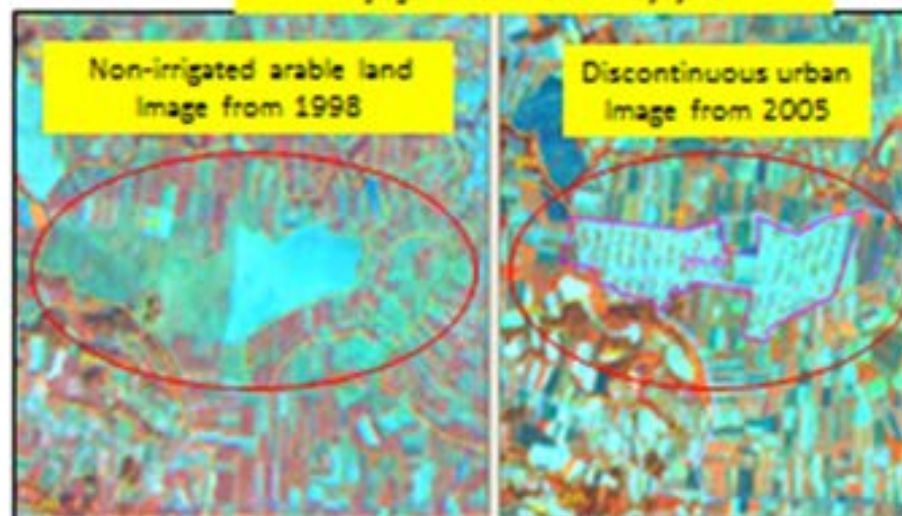


- Artificial surfaces
- Semi-natural areas
- Water
- Agriculture
- Wetlands



*Bijeljina*

*Refugee settlement in Bijeljina*



# Thank you for your attention!



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