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Workshop on climate change impacts, vulnerability and adaptation in West Balkan countries

Climate change and the actions in Kosovo

SABIT RESTELICA

E-Mail: sabit.restelica@rks-gov.net

MINISTRY OF ENVIRONMENT AND SPATIAL PLANNING – MESP

Kosovo Environmental Protection Agency (KEPA)

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Kosovo's Profile



- Total land area: 10,908 km²
- Terrain: low flood areas along the central part of Kosovo, surrounded by mountains to the north, west and south;
 - 53% agriculture, 41% forest;
 - 1% of the land of Kosovo is water surface
 - 5% other surface (traffic, urban, and other land).
- Resident population: 1,739,825 *estimation (december 2011)*
- Highest Peak: Gjeravica 2,856 m;
- Percentage of people living in rural areas: 61%
- Population density (people per km²): 177.4
- Natural resources: coal, lead, zinc, chromium, silver, nickel, Magnesium
- Real GDP growth 4.5% (2012)
- GDP per capita 2,650.0 EUR
- Exports of goods over 319,165.0 million €
- Imports of goods 2,492,348.0 million €
- Coal production 8,212.1 million tones

Climatic hazards in Kosovo

- Exposure to hazards such as droughts, floods, and forest fires will become greater with climate change > Climate variability has already increased in the Western Balkans.
- Rising intensity and frequency of precipitation extremes like heavy rain events, as well as more **severe drought**, particularly since the 1980s > Flash floods are getting more common in mountain areas, while **river floods** occur in plains and **lowlands**.
- Higher temperatures will make heat waves and forest fires more likely > Since 2000 there have been an **increasing number of forest fires** in Kosovo.
- Kosovo has been struck by **drought** several times in the last two decades (1993, 2000, 2007, and 2008)
- Since 2004 80% of Kosovo municipalities have suffered from **water shortages** due to hydrological drought and the **misuse of water resources** (OSCE, 2008)
- Increased temperatures, more uncertain rainfall, and reduced runoff will heighten exposure to drought
 - [Huntjens et al \(2011\),expert \(UNDP\)](#)

High degree of vulnerability in Kosovo

- Natural hazards have a much greater impact than should normally be the case in country such as Kosovo, owing to a high degree of vulnerability.
 - Unprecedented construction boom and urbanization since end of conflict in 1999
 - High socio-economic vulnerability
 - Illegal construction in hazard zones and failure to adhere to building codes
 - Lack of maintenance and destruction during wartime
 - Inadequate design of drainage and sewage systems
 - Inadequate land use and municipal planning increase population exposure to hazards
 - Unsustainable water management and agronomic practices, deforestation, and destruction of slopes by mining activities
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Structural constraints for climate change adaptation

1. Problems in organizational setup related to horizontal and vertical integration;
2. Lack of human capital (people skilled and educated for certain tasks);
3. Low level of awareness among decision makers on climate change issues: how will climate change, what the impacts will be, which adaptation is needed?
4. Lack of adequate financial resources for adaptation;
5. Lack of information and of exchange among the relevant actors
6. Spatial and temporal uncertainties associated with climate change projections

Planning

**Phase 1:
Assessment
Phase**

First roundtable IMWG (March 2013)

Focusing on project objectives, joint problem definition, and first assessment of ideas and solutions



**Phase 2:
Joint Vision
Development**

Second roundtable IMWG (June 2013)

Focusing on the development of a joint vision for the NAS Kosovo and identification of major obstacles to reach this vision + priority interventions



**Phase 3:
Development
Strategy**

Third roundtable IMWG (July 2013)

Comparison and evaluation of alternative interventions based on Multi-Criteria Analysis (MCA)



**Phase 4:
Fine-tuning**

Fourth roundtable IMWG (Sept 2013)

Draft NAS: Feedback and discussion focusing on finalisation of NAS Kosovo



Outline Final NAS (cont.)

The Final NAS may be elaborated in terms of:

- a) Water resources and allocation
- b) Land planning
- c) Ecological protection
- d) Agricultural and Forestry development
- e) Economic development
- f) Public health
- g) Tourism and archeology
- h) Disaster risk reduction
- i) Institutional and Legal Aspects
- j) Indication of costs and planning



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Low Emission Development Strategy for Kosovo (LEDSK)

Prepared by: Jernej Stritih, Slovenija



Why a Low Emissions Development Strategy?

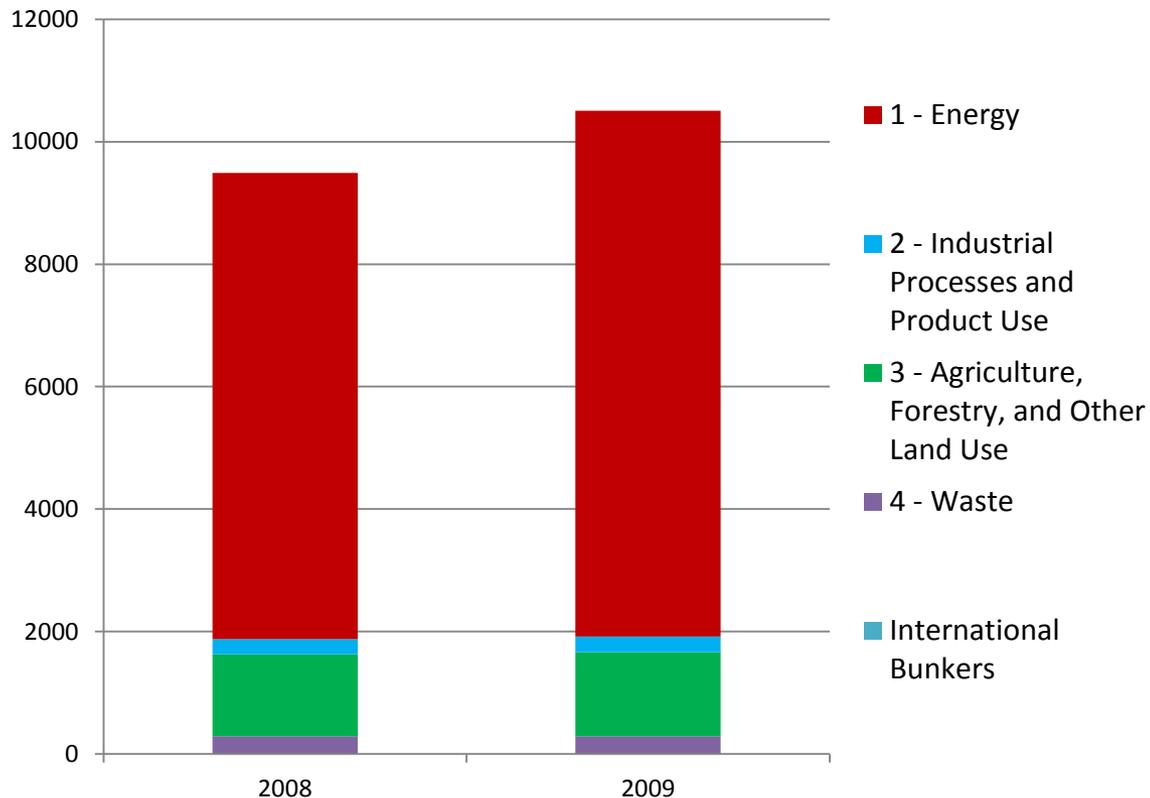
- Basis for strategic decisions on future development
- Part of the common global effort
- Climate change is an EU policy priority
- Basis for funding of emission reduction measures
- Integration of environmental, economic and social policies – sustainable development

Kosovo

- Kosovo is a country in transition
- Limited information on greenhouse gases emissions (only 2008 – 2009 & 2010-2011, april 2013)
- Uncertain time frame of UN membership and EU accession
- Low emissions per capita, high emmissions per unit GDP

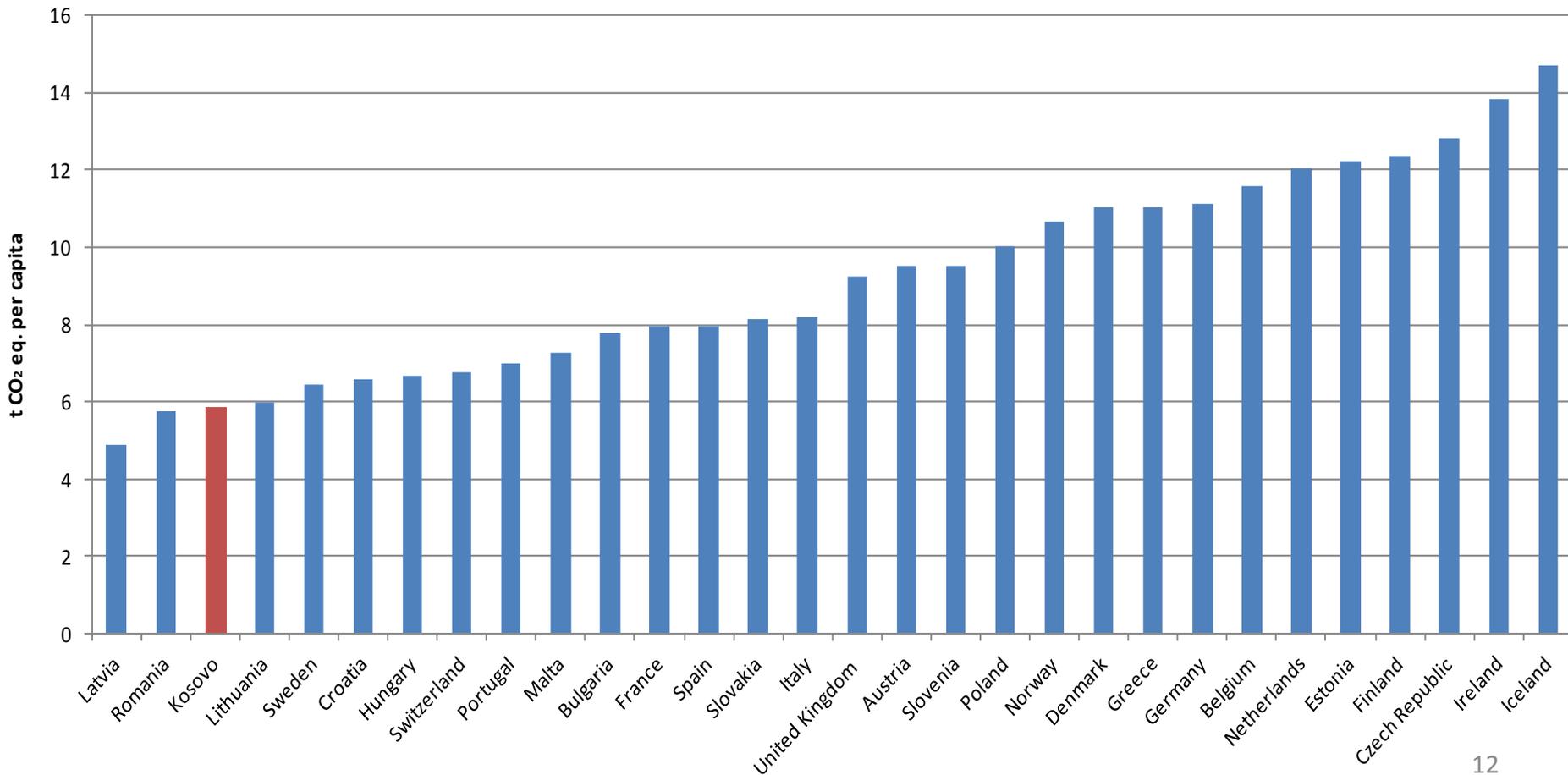
Emissions Source: Kosovo greenhouse gas emissions 2008 - 2009

t CO₂ eq.



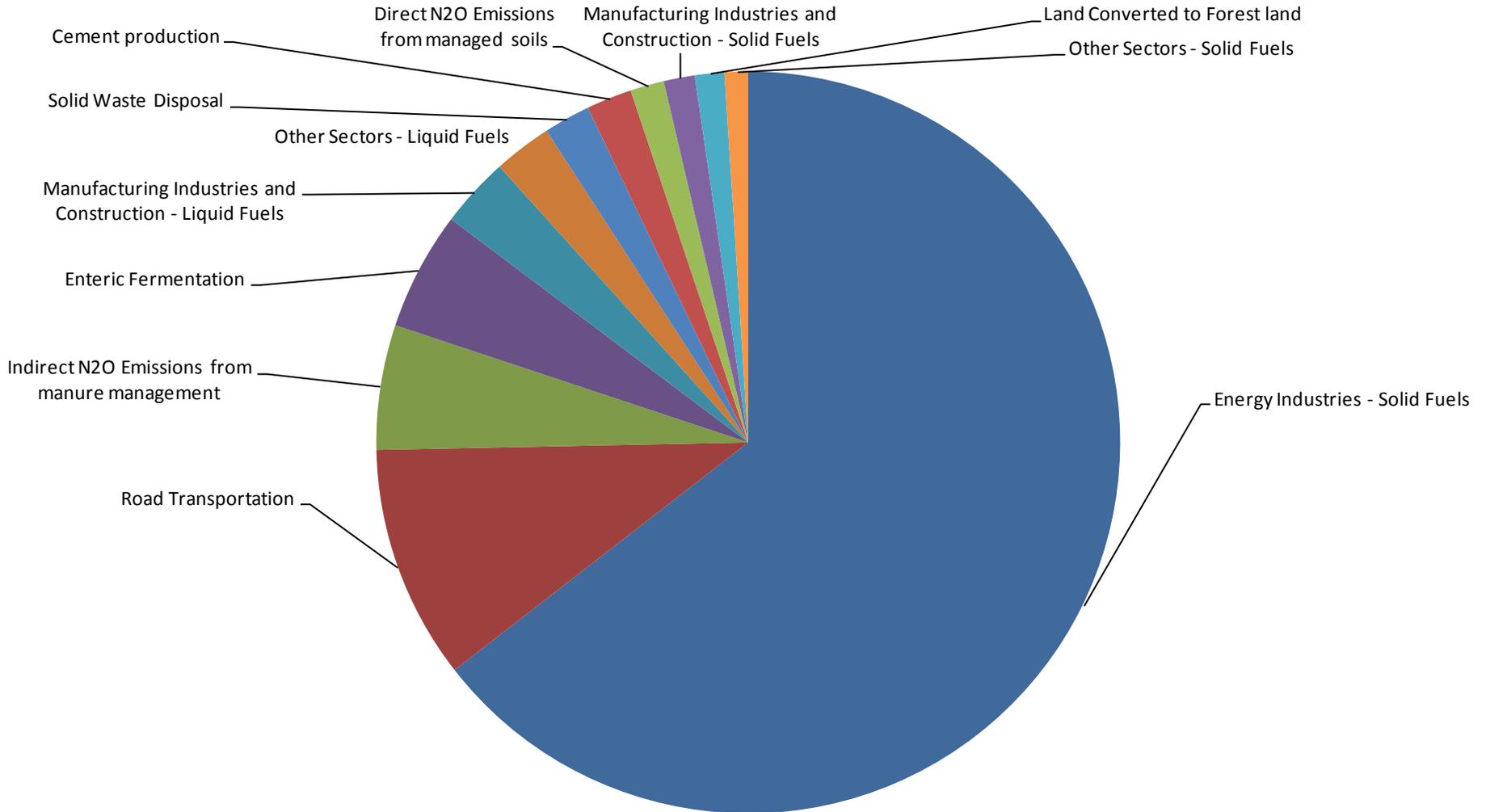
	Kosovo	EU
Per capita t CO ₂ eq.	5,7	9,9
Per Euro GDP kg CO ₂ eq.	0,84	0,4

International comparison of GHG emission, 2009 Source: Kosovo greenhouse gas emissions 2008 - 2009



Key emission categories in Kosovo, 2009 Source:

Kosovo greenhouse gas emissions 2008 - 2009



NEAP

AIR	
1. Energy	Rehabilitation of contaminated surfaces and landscaping the area of KEK
2. Energy	Energy use for heating by process of co-generation power plant Kosova B and the expansion of the network
1. Energy efficiency	Implementation of energy efficiency measures for households and industry
1. Transport	Improving the quality of public transport services
2. Climate change	Inventory of emissions of greenhouse gasses (GHGs)
3. Management	Determination of mechanisms for effective implementation of IPPC
4. Management	Promoting the use of gas, alternative sources of energy

WASTE	
1. Re-cycling	Supporting waste recycling and with subsidies

ENVIRONMENTAL POLICY

1. Management	Development of Eco-Fund
2. Policy	Support for environmental NGOs regarding non-formal education
3. Economic instruments	Feasibility study for the design and establishment of economic instruments
4. Economic instruments	Draft Regulations for the application of economic instruments
5. Public awareness	Raising public awareness of energy efficiency (production and use)
8. Energy efficiency	Activities and capacity building measures for the use of renewable energy sources
9. Education	Develop environmental education programmes for all levels of education (schools, universities)

AIR	
1. Energy	Construction of new power plants with clean technology
2. Energy	Increased use of central heating systems
4. Climate change	Drafting Strategy for Climate Change
5. Climate change	Capacity Building for Climate Change
6. Transport	Development of road concept for heavy vehicles in urban areas
8. Transport	Development Plan for improving the public transport system
9. Industry	Institutional support projects based on clean technology and renewable resources
10. Management	Assessment of emissions to the air (1985-1990), Kyoto Protocol, for economic sectors
11. Energy	Increased use of central heating system

WASTE	
1. Construction	Strategy for the use of material for construction and recycling of used construction materials

BIO-DIVERSITY

3. Bio-diversity	Protection of the Sharr Mountains Albanian Alps as ornithological reserves (IBA regions) in accordance with international standards for the protection of birds
6. Natural resources	Increase of protected areas and their efficient management

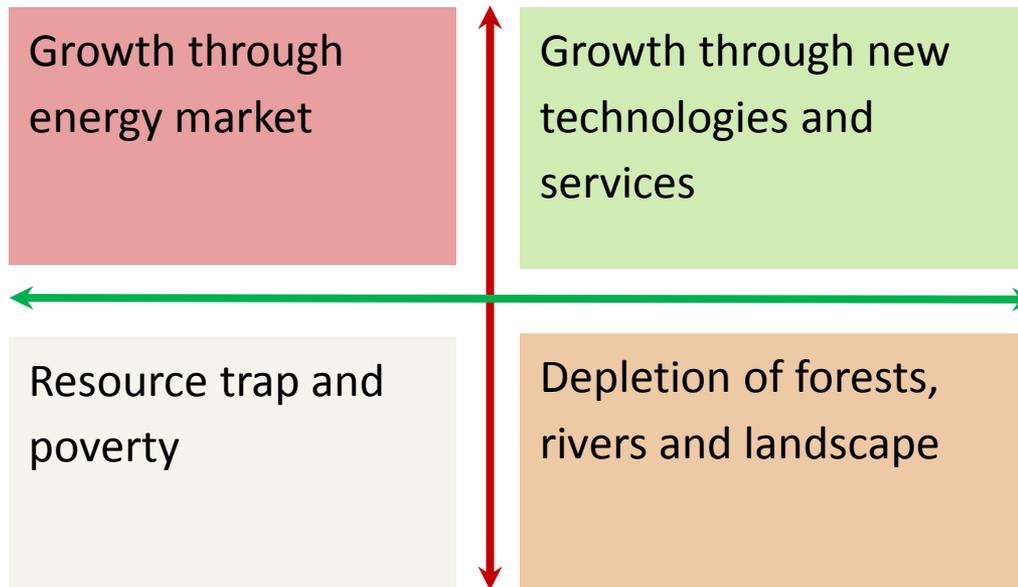
ENVIRONMENTAL POLICY

1. Information	Development of a comprehensive EIS linked to the EIONET for water, waste, air, soil and bio-diversity
2. Energy	Incentives and subsidies for energy efficiency and development of new technologies and alternative energy sources



Possible scenarios for Kosovo

**High energy efficiency,
High sustainability**



**Low energy efficiency,
Low sustainability**

Possible areas of action

- Capacity building,
 - Legislation
 - Institutions
- Energy generation
 - Improving efficiency
 - Renewables
- Buildings
 - Energy efficiency
 - District heating
- Transport
- Industry
- Forests
 - Carbon sequestration

Main pollutants





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Situation in 2013



Conclusions 1

- **Objectives for climate change**
- The gradual alleviation of climate change pressures in line with the general principles of the UNFCCC (1994);
- Establishment of a system to assess and select appropriate measures to reduce greenhouse gas emissions;
- Legal, institutional and technical capacity building to find systematic solutions for climate change issues;
- Implementing the KES and NEAP (2011-2015) to mitigate the problem of climate change in Kosovo.

Conclusions 2

Priorities

- Clarifying the legal status in relation to membership of Kosovo as an active partner in international climate change conventions;
- Institutional capacity building on climate changes issues;
- Establishment of a Focal Point for climate changes;
- Drafting the Registry and Cadastre of immisions and emissions of greenhouse gases by source;
- Assessment of the pollutant air emissions during 1985-1990, in accordance with the requirements of the Kyoto Protocol, under the IPCC methodology for 6 economic sectors;
- Utilisation of the financial opportunities and trade rules on greenhouse gases;
- Spatial planning, taking into account adaptation to climate changes (e.g. flooding).



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Thank you for your attention!