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Sustainable Energy Connectivity in Central Asia

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International Conference

"Climate change - challenges and solutions for sustainable energy"

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Evolution of European Union climate change mitigation policies

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BRIEF INFORMATION ABOUT THE PROBLEM OF CLIMATE CHANGE

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Brief information about the problem of climate change

- **United Nations Framework Convention on Climate Change** (UNFCCC), adopted on 9 May 1992
- **Kyoto Protocol** (KP) adopted in 1997
- The **Paris Agreement** (PA) was adopted on 12December 2015 (came into force less than a year later)

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Brief information about the problem of climate change (2)

The ultimate objective of all agreements related to the UNFCCC:

- To stabilize greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (human-induced) interference with the climate system
- This level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to enable economic development to proceed in a sustainable manner
- UNFCCC, KP and PA call for financial assistance from Parties with greater resources to those less well off and more vulnerable

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Brief information about the problem of climate change (3)

- Developed country Parties provide financial resources to assist developing country Parties in implementing the Convention
- To facilitate this, the Convention established a Financial Mechanism to provide financial resources to developing country Parties. The financial mechanism also serves the Kyoto Protocol and the Paris Agreement
- Operating entities of the Financial Mechanism:
    - ✓ Global Environment Facility (GEF) - since 1994
    - ✓ Green Climate Fund (GCF) – since 2011

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Brief information about the problem of climate change (4)
Why was the Kyoto Protocol necessary?

- According to the Second Assessment Report of the **Intergovernmental Panel on Climate Change** (IPCC), prepared in 1995, "carbon cycle models show that immediate stabilization of CO2 concentrations at current levels can only be achieved by immediately reducing CO2 emissions by 50-70% . It became clear that this could not be achieved through voluntary measures alone
- The **Kyoto Protocol** committed 37 industrialized and transition countries and the European Union to limit and reduce GHG emissions in accordance with agreed individual targets (an average of 5% below 1990 levels)

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Brief information about the problem of climate change (5)

- The **Kyoto Protocol** provided for three market mechanisms
  - ✓ ***Emission trading*** - has led to a growing number of emissions markets in countries around the world, such as the European Union Emissions Trading System (EUETS)
  - ✓ ***Clean Development Mechanism*** (CDM)
  - ✓ ***Joint Implementation*** (JI)
- Active phase of the KP:
  - ✓ 2005-2012 - First commitment period
  - ✓ 2013-2020 – Second commitment period

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Brief information about the problem of climate change (6)

- **Clean Development Mechanism (CDM) in numbers:**
  - More than 7,800 CDM projects registered
  - More than 350 Programmes of Activities registered
  - Over 2,337,000,000 Certified Emission Reductions (CERs) issued for CDM projects
  - More than 60,000,000 CERs issued for Programmes of Activities
- **Joint Implementation (JI) in numbers:**
  - 332 project documents and 1 programme of activities document are posted on the UNFCCC JI website
  - There are 129 verifications posted on the UNFCCC JI website

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BRIEF INFORMATION ON THE PARIS AGREEMENT

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Brief information on the Paris Agreement

Why was the Paris Agreement necessary?

- According to the IPCC Fifth Assessment Report (AR5), completed in 2014, "Human influence on the climate system is clear and growing, with impacts across all continents and oceans. Many of the changes observed since the 1950s are unprecedented for decades and millennia. The IPCC is now 95% confident that humans are the main cause of current global warming."

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Brief information on the Paris Agreement (2)

- To limit global warming to 1.5°C by 2100, GHG emissions must be reduced by 43% by 2030
- To solve this problem, a new **Paris Agreement** on combating climate change was concluded
- The Paris Agreement requires all Parties to put forward their best efforts through "nationally determined contributions" (NDCs) and to strengthen these efforts in the years ahead

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Brief information on the Paris Agreement (3)

- Unlike the Kyoto Protocol, in the **Paris Agreement** all Parties take responsibility for reducing GHG emissions; there are no quantitative obligations to reduce or limit GHG emissions - each country independently determines its own policy in this area - through the implementation of Nationally Determined Contributions (NDC)

- The key component of the PA is Article 6. It allows the Parties to:

  ✓ Voluntarily cooperate to implement their NDCs

  ✓ Mobilize financial support for developing countries

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Brief information on the Paris Agreement (4)

- There are three tools under Article 6:
  - ✓ **Article 6.2**: Allows countries to exchange mitigation outcomes bilaterally and use them towards their nationally determined contributions (NDCs)
  - ✓ **Article 6.4**: Establishes a new mechanism for the validation, verification and issuance of high-quality carbon credits
  - ✓ **Article 6.8**: Provides opportunities for countries to cooperate towards the achievement of their NDCs without relying on carbon markets

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Brief information on the Paris Agreement (5)

- Article 6.4 can be a source of climate finance for developing countries
- Through this mechanism a company in one country can reduce emissions in that country and have those reductions credited, so that it can sell them to another company in another country
- At the 28th Conference of Parties (COP28), no decision was adopted on rules for carbon markets, leaving major questions on international carbon trading unanswered
- Perhaps at the 29th Conference of the Parties (COP29), scheduled in 2024 in Baku, the Parties will adopt guidelines related to the launch of Article 6

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EU CLIMATE CHANGE MITIGATION POLICY

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EU climate change mitigation policy

- The EU has long recognized the importance of limiting the effects of climate change and striving to lead by example in reducing greenhouse gas emissions
- The EU's first climate and energy package set a key target: a 20% reduction in GHG emissions by 2020
- This target has been achieved - EU emissions have been reduced by 24% from 1990 levels
- However, in 2014, it became clear that to transform Europe into a high-energy efficient, low-carbon economy, it was necessary to go further

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EU climate change mitigation policy (2)

- New targets for 2030 were set:
  - To reduce GHG emissions by at least 40% (compared to 1990)
  - Increase the share of RES by at least 32%
  - Improving energy efficiency by reducing energy consumption by at least 32.5%
- In December 2020, a new binding EU target was established:
  - ***Net domestic reduction of GHG by at least 55% by 2030*** compared to 1990

"Net" refers to the balance between the amount of GHG that is produced and the amount that is removed from the atmosphere

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EU climate change mitigation policy (3)

- On 24 June 2021, the European Parliament adopted Regulation (EU) 2021/1119 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ("European Climate Law" - entered into force on 29 July 2021)
- European Climate Law:
  - ✓ Establishes a framework for achieving climate neutrality within the EU by 2050
  - ✓ Includes, in addition to the binding objective of climate neutrality by 2050, the aim of achieving negative net emissions thereafter

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EU climate change mitigation policy (4)

- ✓ Provides for setting a target for 2040 within six months of the first global stock take under the Paris Agreement
- ✓ Introduces rules to ensure continued progress towards the global goal of climate change adaptation under the Paris Agreement

- To reach the 2030 target, the European Commission proposed a package of new and revised legislation known as Fit for 55, comprising 13 interlinked revised laws and 6 proposed laws on climate and energy

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EU climate change mitigation policy (5)

Targets for Energy Efficiency (EE) of buildings

- In the EU, the buildings sector accounts for about 40% of energy consumption and 36% of energy-related greenhouse gas emissions
- To achieve climate neutrality in the EU by 2050, reducing energy consumption in buildings, as well as decarbonising the heating, cooling and electricity sectors, is crucial. As part of this:
    - ✓ All new buildings must be near-zero energy buildings
    - ✓ Existing buildings need to be updated to improve their energy performance

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EU climate change mitigation policy (6)

- According to revised Energy Performance of Buildings Directive (EPBD) :
  - ✓ Each EU member state need to reduce the average primary energy use of residential buildings by 16% by 2030, and 20-22% by 2035
  - ✓ At least 55% of the decrease in the average primary energy use will be achieved through the renovation of the worst-performing buildings
  - ✓ 16% worst-performing non-residential buildings will need to be renovated by 2030 and 26% by 2033

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EU climate change mitigation policy (7)

Renewable Energy Targets

- In July 2021, the European Commission proposed to increase the target for Renewable Energy (share in energy consumption) for 2030 from 32% to 40%
- To date, the following targets have been approved:
  - ✓ The share of energy from RES in the gross final consumption of energy in 2030 should be at least 42.5%
  - ✓ Member States shall collectively endeavor to increase the above share to 45%

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EU climate change mitigation policy (8)

Assessing the achievement of EU GHG reduction targets

- GHG emissions in 2022 were 2% below 2021 levels and 31% below 1990 levels. This was achieved through:
  - ✓ Increasing the use of renewable energy sources and reducing the consumption of fossil fuels
  - ✓ Improved energy efficiency
  - ✓ Structural changes in the economy
- GHGs were significantly reduced in the industrial and buildings sectors, but there was an increase in energy generation and transport

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EU climate change mitigation policy (9)

Carbon Border Adjustment Mechanism

- On October 1, 2023, the Carbon Border Adjustment Mechanism (CBAM) was introduced - puts a fair price on the carbon emitted during the production of carbon-intensive imported goods that are entering the EU
- The CBAM is expected to be fully in place as of 2026

CBAM is a mechanism developed by the EU to combat climate change and reduce greenhouse gas emissions by economically offsetting so-called "carbon leakages" that occur when EU member states purchase carbon-intensive products from countries with weak carbon regulation

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