

# Working with Russia on Climate Change: Barriers and Opportunities for Enhancing EU-Russia Dialogue

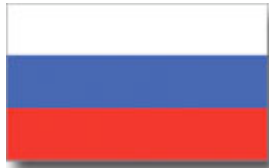
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IES Autumn Lecture Series:  
The EU and the Fight against  
Global Climate Change  
10 December 2008



RUSSIAN REGIONAL  
ENVIRONMENTAL CENTRE



## What is the RREC?



RREC is a non-commercial organization founded in 2000 by the European Commission and the Russian Academy of Civil Service

### Our mission

Promotion and introduction of advanced ideas, policies, standards and best practices to ensure environmental quality and sustainable development of Russia by providing information dialogue and implementing practical actions.

### Climate change and energy efficiency activities:

- promotion of EU-Russia co-operation;
- assistance in implementation of the UNFCCC and Kyoto protocol;
- awareness-rising;
- RREC is functioning as a regional secretariat for Renewable Energy and Energy Efficiency Partnership (REEEP)



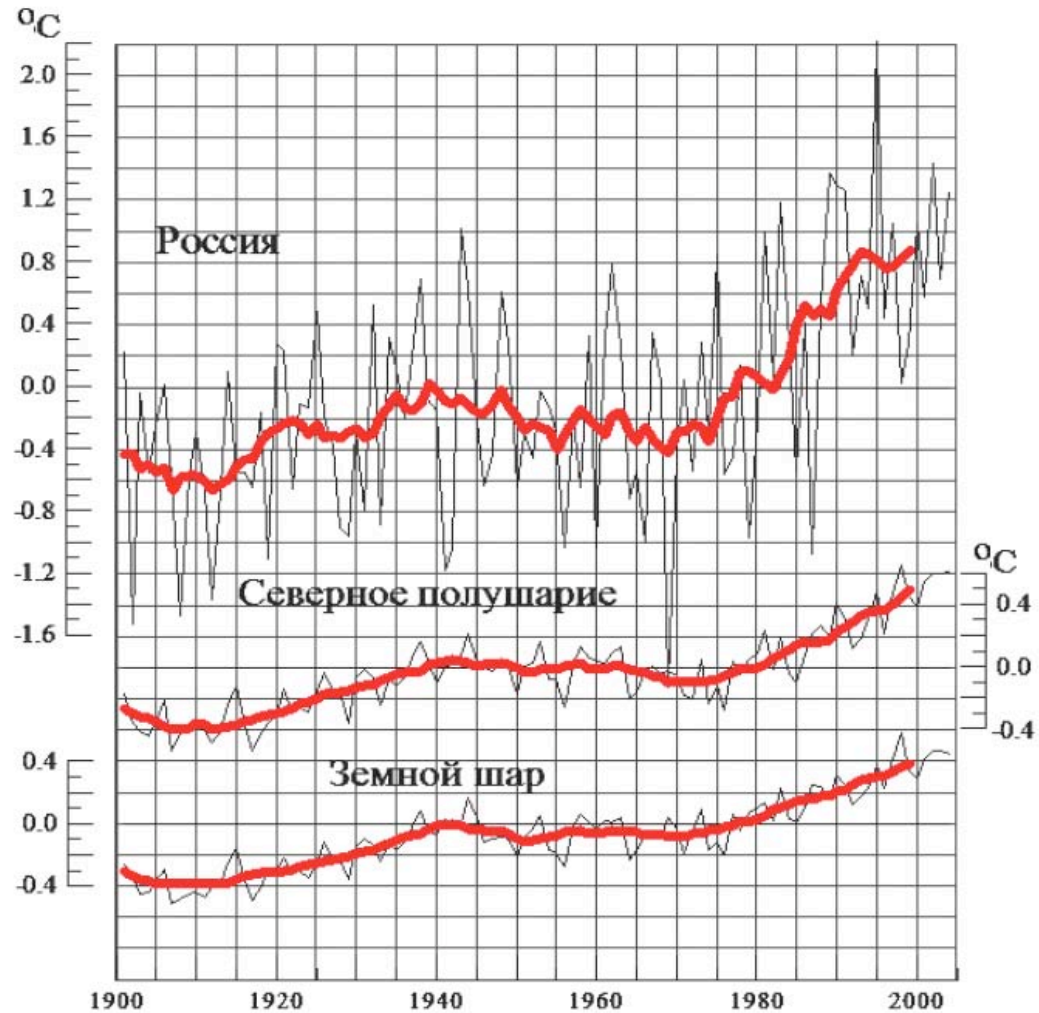
## Climate Change Challenge: a brief overview

- There is strong scientific evidence that the climate is changing (+0,74 °C in the 20<sup>th</sup> century);
- Climate change means not only temperature growth, but also consequent effects that endanger the existence of ecosystems, may cause significant economic losses and threaten human health and lives;
- 2007 Assessment Report of the **Intergovernmental Panel on Climate Change (IPCC)** provides evidence of anthropogenic impact on the climate system through increased human-induced GHG emissions;
- Main GHG gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O. Main source – energy sector.

## Climate Change in Russia: temperature growth

*Temperature had increased by 1°C in Russia in 1900-2004 in comparison with global 0,74°C growth.*

*Surface air temperature changes in Russia, the Northern Hemisphere and the World, 1901-2004.*



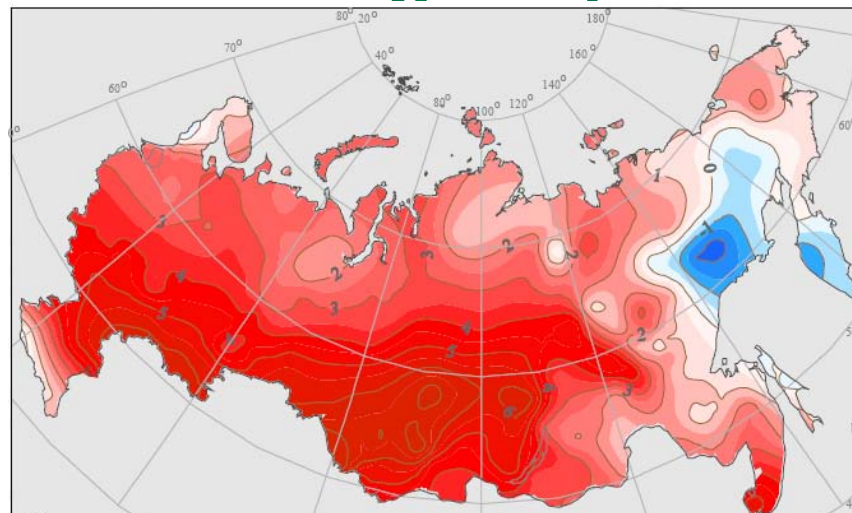
Source: Strategic Prediction, Roshydromet, 2006.

## Climate Change in Russia: uneven distribution of climate change impacts

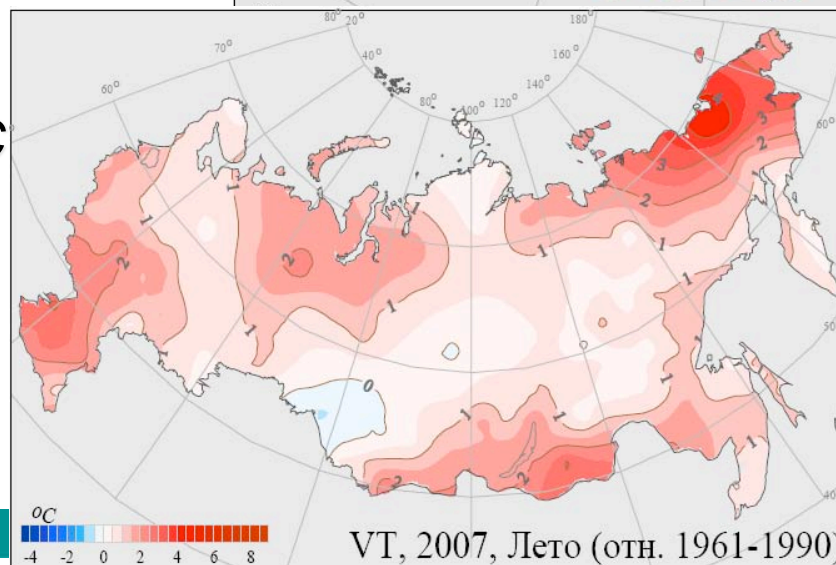
Due to its vast territory and variety of geographical conditions, climate change effects have considerable spatial and seasonal variations in Russia.

*Surface air temperature in winter and summer 2007, °C comparison with an average for 1961-1990.*

Source: Report on climate features In Russia in 2006, Roshydromet, 2008.



ЗИМ., 1961-1990)



ЛЕТО, 2007, Лето (отн. 1961-1990)



## Climate Change in Russia: Ice-melting

*Bolshoy Azau glacier, Elbrus, North Caucasus*

august 2007



1958



august 1958

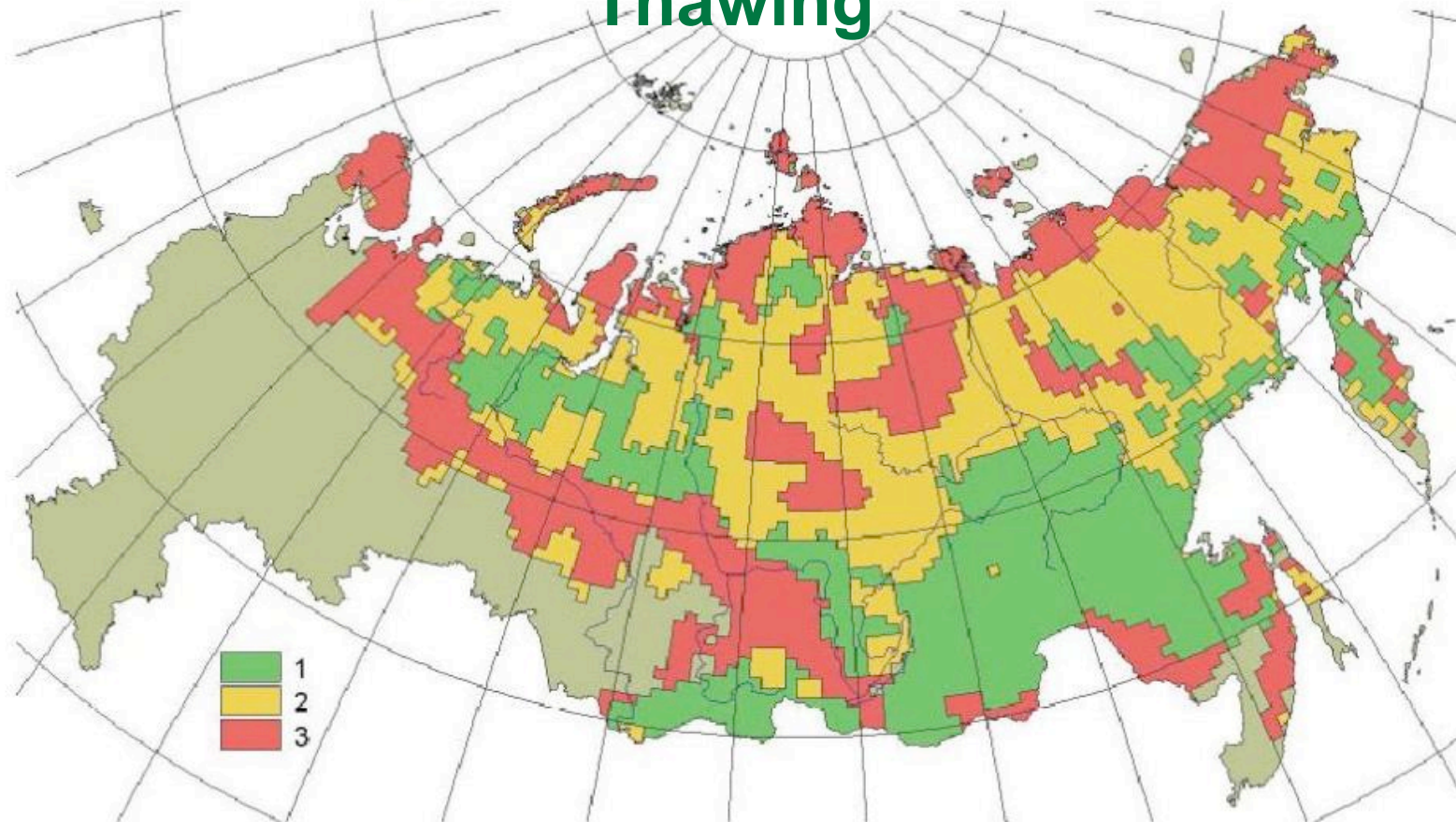


2007

Source: MSU Faculty of Geography, RREC.



# Climate Change in Russia: Risk of Permafrost Thawing



Anisimov O., Reneva S., Permafrost and Changing Climate: The Russian Perspective. *Ambio* Vol. 35, No. 4, June 2006 p. 169–175: Royal Swedish Academy of Sciences 2006. <http://www.ambio.kva.se>

**1 – Low risk**

**2 – Middle risk**

**3 – High risk**



## Future Climate Change Impacts

*The expected climate changes may have both negative and positive impacts for Russia*

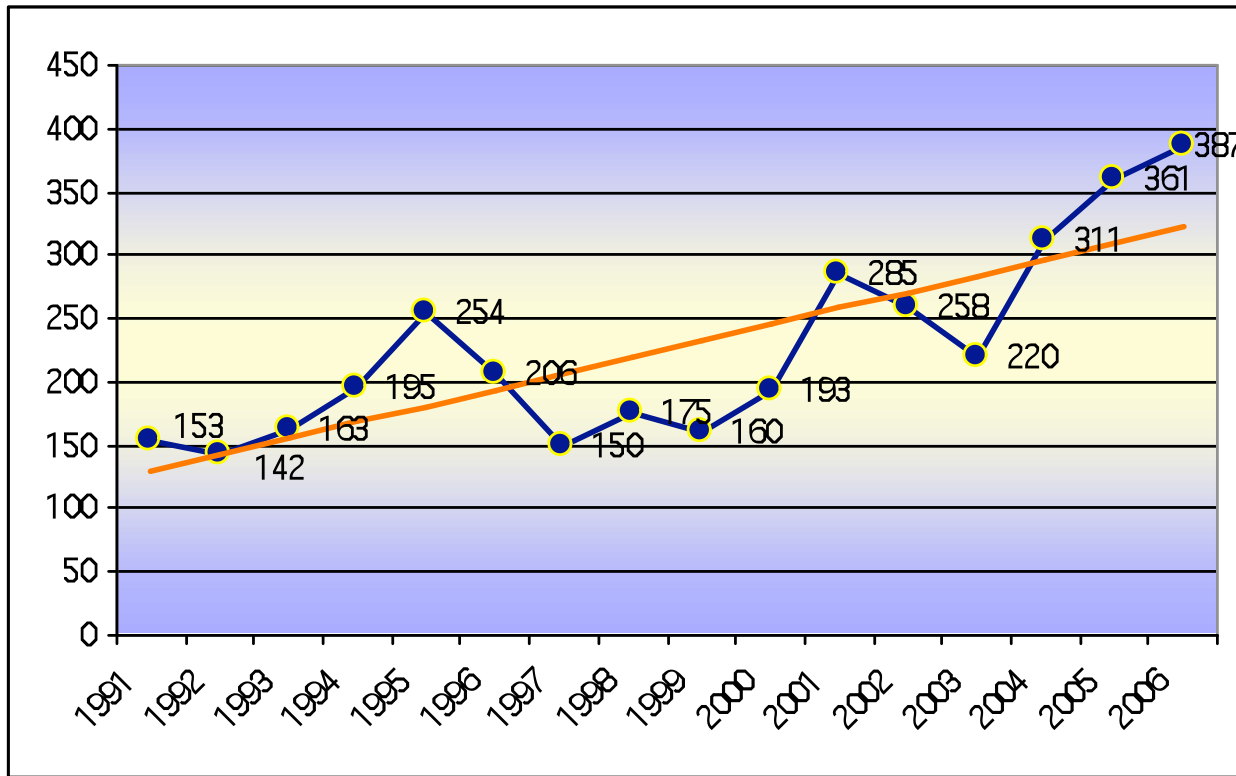
### Negative

- Water shortages and significant crop-yield decrease (up to 12-14%) in southern regions: Northern Caucasia, Volga, Ural and Western Siberia;
- Increased severity and impacts of extreme weather events;
- Spreading of the infectious diseases;
- Erosion of coastal areas,
- Infrastructure damages because of permafrost thawing, etc.

### Positive

- Decrease in duration of a heating period;
- Overall crop-yield increase in northern regions;
- Decrease of the area of environmental discomfort;
- Further development of the Northern Sea Route due to Arctic ice melting;
- Increase of the solar and wind power potential, etc.

# Climate Change in Russia: Extreme Weather Events



*An average annual number of extreme weather events increased from 150-200 in early 1990s to 250-300 at the beginning of this century.*

*In 2007 the record figure of 445 events was registered.*

## **Total number of extreme events in Russia in 1991-2006.**

Source: Strategic Prediction, Roshydromet, 2006.



## How to react?

- Climate change is a global challenge. It has strong interlink with such issues as energy security, sustainable development and, thus, is high in the international agenda
- The countermeasures should be taken at the global level, but also by individual countries, and even locally
- Climate change strategy should incorporate both climate change mitigation and adaptation policies and measures. Only integrated approach can ensure sustainable development of territories

**Global challenge -> think  
and act globally  
(UNFCCC, Kyoto  
protocol)**

**National and local  
policies and measures  
(adaptation + mitigation)**

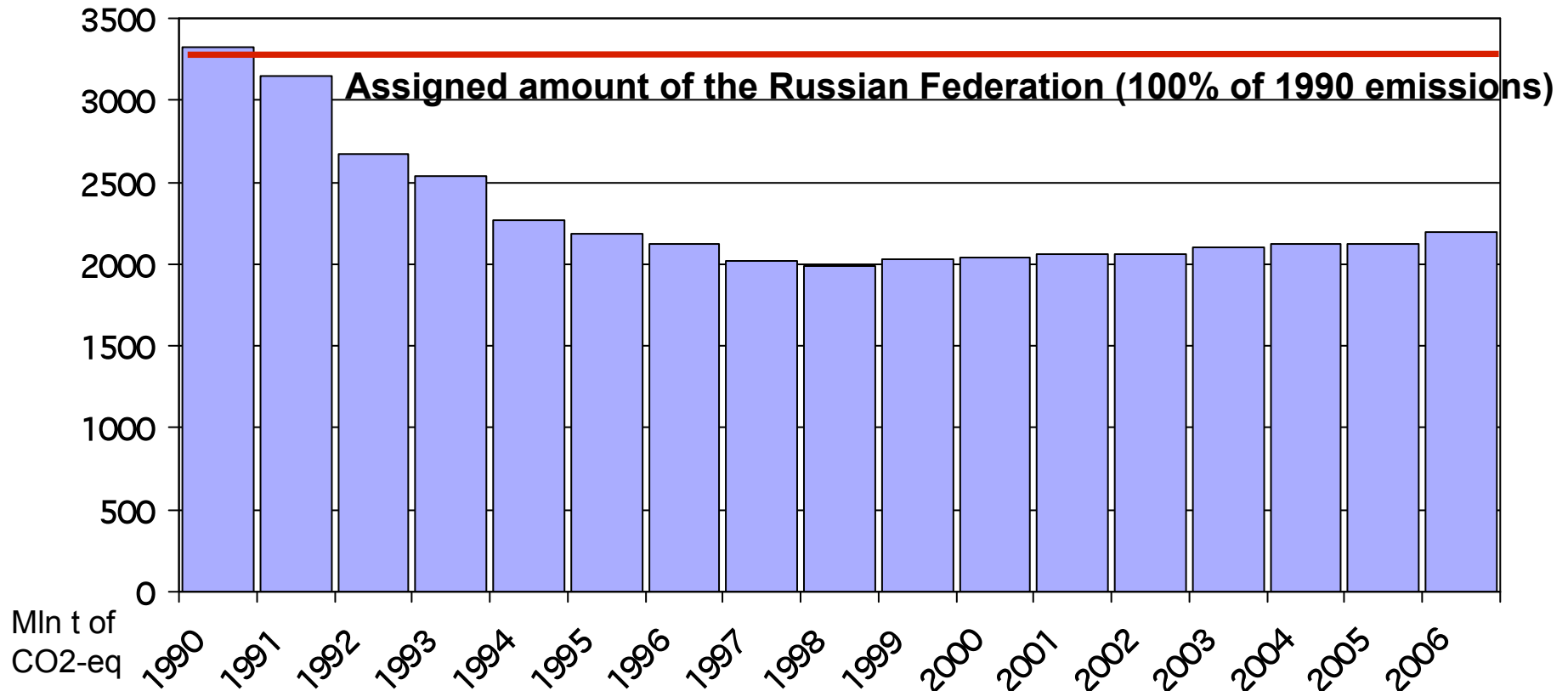


## What is being done in Russia?

- Russia is a Party to the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto protocol;
- It actively participates in the international climate change negotiations under the UNFCCC, G8, MEM and other processes;
- It is expected to fulfill the national commitments of GHG emissions limitation under the Kyoto protocol in 2008-2012;
- The on-going scientific research work in the field of climate risks assessments for different regions and sectors of economy;
- Active work on future GHG emissions scenarios;
- Pilot climate change adaptation and mitigation projects in Russian regions.



## Quantitative commitments and emissions profile of Russia



Under the Kyoto protocol Russia is not to exceed the level of emissions of the base year (1990) in 2008-2012 on average. According to all the forecasts Russia will fulfill its quantitative commitments and will even have an excess of quota for trade.



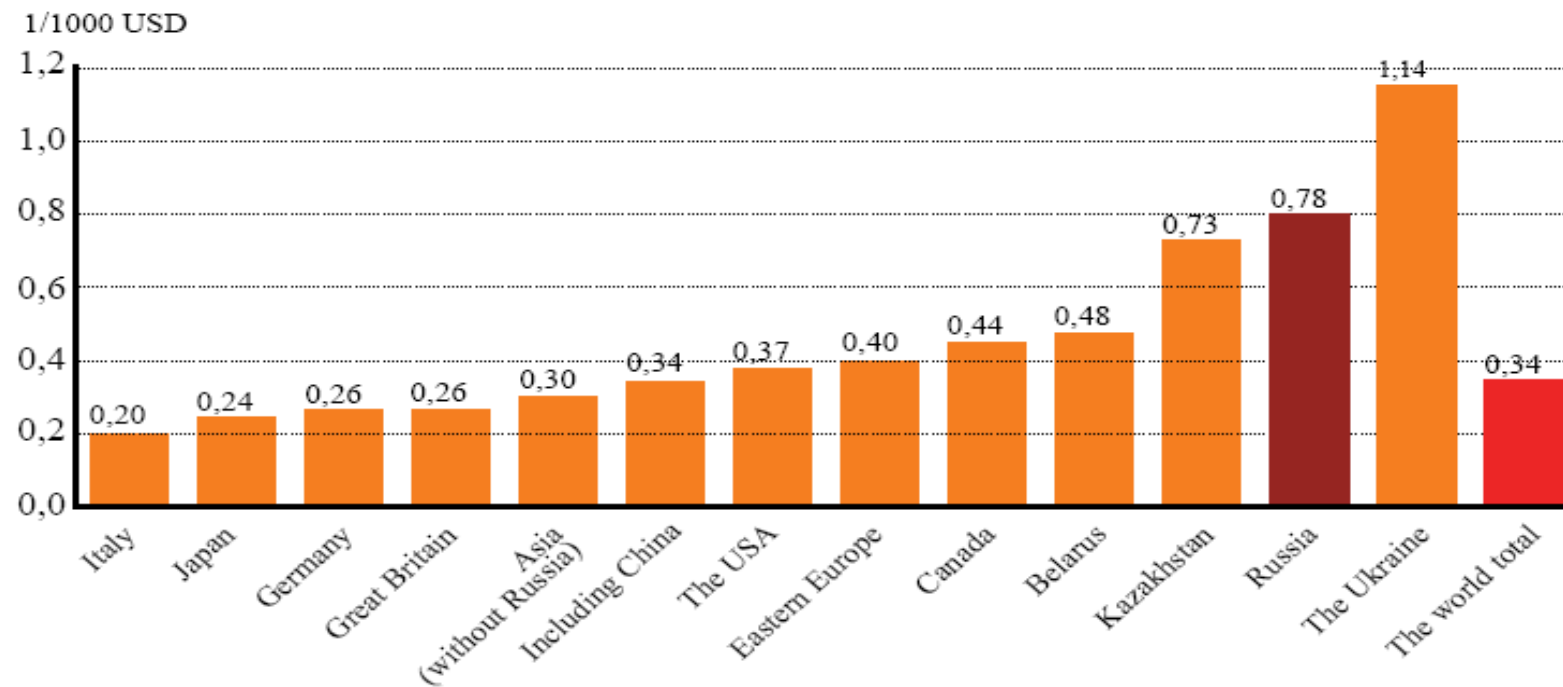
## Incentives for further actions

- High energy-saving potential, especially in the energy, housing and municipal sectors;
- Political will towards energy efficiency enhancement (Decree of the President of 4 June 2008, stipulating 40% increase of energy-efficiency of the national economy by 2020 and the following regulatory acts to be adopted in 2008-2009);
- The need for technological modernization of industrial facilities;
- High interest of business to emissions trading;
- To enhance prestige of the country and to remain an active player in the international climate process.

# Opportunities for mitigation efforts in Russia

## GDP POWER INTENSITY OF THE COUNTRIES OF THE WORLD BY CURRENCY PURCHASING-POWER PARITY

*GDP Energy Intensity of Russia (by currency purchasing-power parity) is :  
2,3 times as high as an average index over the world;  
- 3, 2 times the EU countries.*



Source: MinPromEnergO Russia, 2008



## Decree of the President of Russia of 4 June 2008

**It sets a target of 40% increase of energy efficiency of the national economy by 2020**

*(the following regulatory acts to be adopted in 2008-2010)*

- Introducing efficiency standards in energy-intensive sectors
- Strict restriction on further use of obsolete technologies
- Promoting leading role of public sector
- Labeling of power-intensive goods
- Creating incentives for businesses for efficiency improvements
- Public support for R&D in the area of energy-saving technologies

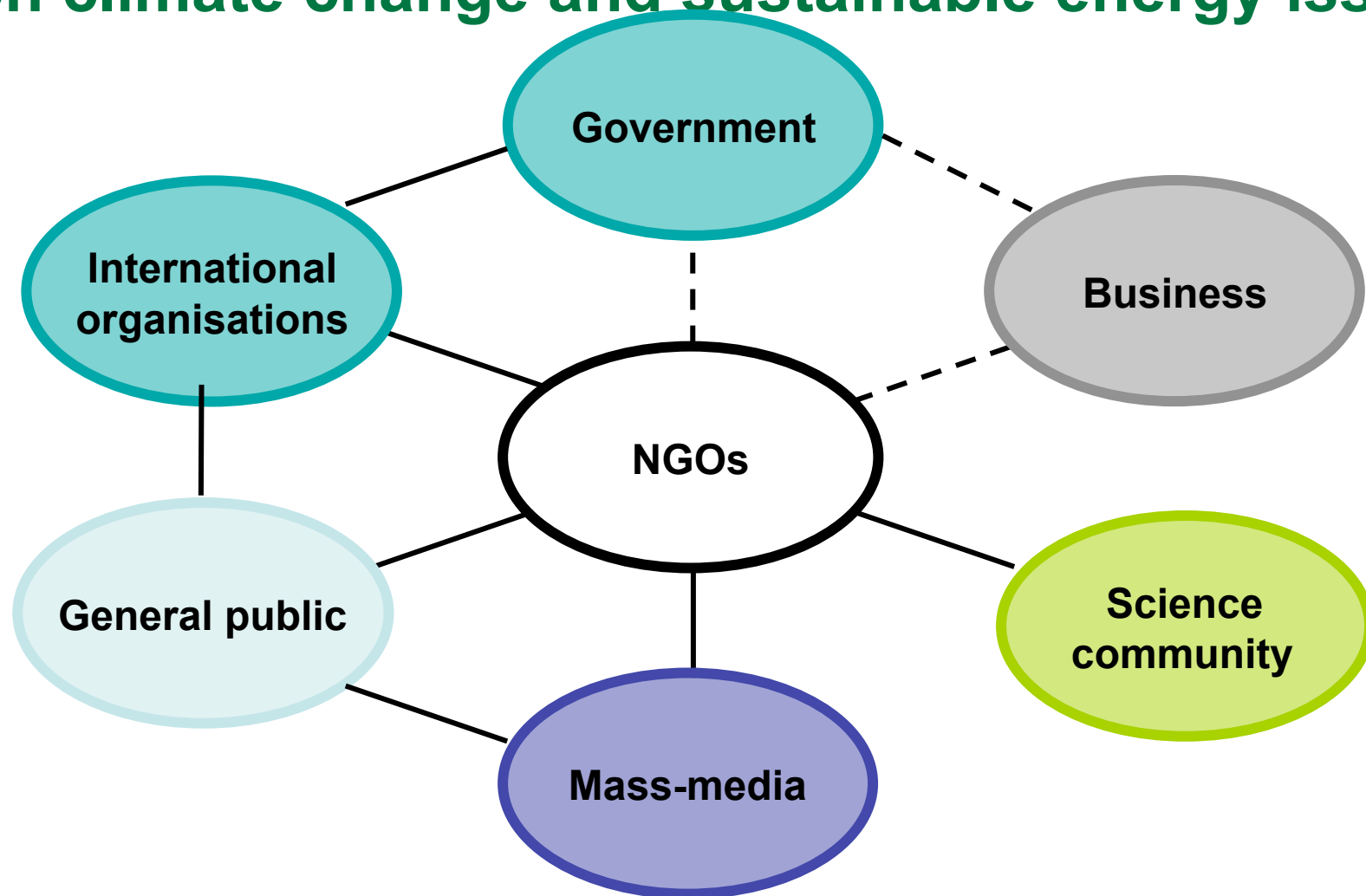


## Barriers for further development of climate change and sustainable energy policies in Russia

- Climate change is not among top-priorities of the Russian policy;
- Climate change and sustainable energy issues are split up between 9 Ministries and Agencies -> low level of co-operation;
- Weak signals from federal to regional and local authorities;
- Enormous oil and gas resources slow down the transfer to low-carbon and renewable sources of energy;
- Low social and environmental responsibility of business;
- Low level of awareness of regional policy-makers, business, public;
- Low potential for broad promotion of renewable energy;
- Bureaucratic barriers for active involvement of Russian business into emissions trading;
- Poor co-operation between stakeholders...



## Co-operation between Russian stakeholders on climate change and sustainable energy issues





## **Role of Russian NGOs in promotion of climate change countermeasures and sustainable energy**

- development of environmentally-minded society through awareness-rising;
- capacity-building of Russian stakeholders (business, mass-media, local government and general public) in answering climate and energy challenges and promotion of intersectoral co-operation;
- popularisation of scientific information and its dissemination;
- encouraging of the Russian government, local administration, business to do more;
- assistance in development of international co-operation of Russia on climate change and sustainable energy issues.



## Examples of RREC/REEEP Projects

**Co-operation with the Government:** consulting, assistance in elaboration of regulatory framework, participation in international negotiations.

### **Enhancement of intersectoral co-operation:**

- Joint meeting of EU-Russia Climate Change Subgroup and Thematic Group on Energy Efficiency (February 2008);
- Pilot project on adaptation to climate change in Murmansk oblast (started with International conference in May 2008);

### **Trainings and seminars in Russian regions:**

- Media-trainings for Russian journalists on climate change and sustainable energy (Elbrus, July 2007; Altai, July 2008);
- Business-seminar “Investments into Energy Efficiency” (Rostov, February 2008).

**Media-activities:** press-conferences, contests, exhibitions;



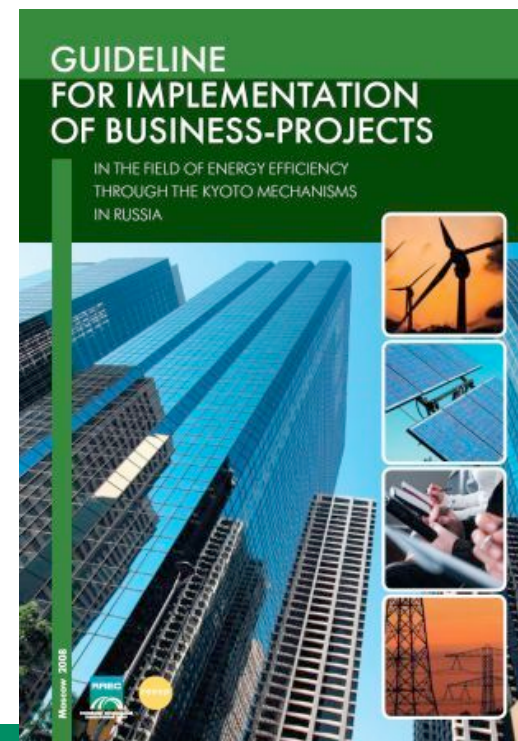
## Examples of RREC/REEEP Projects

### Websites:

[www.climatechange.ru](http://www.climatechange.ru) - comprehensive information on climate change challenge, international and Russian activities;

[www.reeep.ru](http://www.reeep.ru) – key Russian organisations and innovative energy technologies databases.

### Publications:





## Potential areas for EU-Russia co-operation:

- To enhance political dialogue on climate change and sustainable energy issues;
- To include climate change into EU-Russia energy co-operation;
- Joint energy efficiency and energy-saving projects in Russian regions;
- Co-operation on legal matters;
- Emissions trading;
- Energy-service companies (ESCOs);
- Sharing best experience and capacity-building of Russian stakeholders.

***Thank you for your attention!***

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