Climate policy in Russia

Warming Global: Looking Beyond Kyoto
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Environmental Defense
Russia and global carbon emission: Why Russia is important?

• For Kyoto Protocol to enter into force;
• Russia serves as a compliance reserve for the EU, Japan and Canada;
• For future negotiations on the limitation of GHG emissions:
  – Russia has the largest reserves of energy resources (especially coal and natural gas);
  – Russian boreal forest is a significant storage area for sink carbon.
Controversies of Russian climate policy

• Russia is an obvious beneficiary of the Kyoto Protocol. Why did it take so long to Ratify the Protocol?
• Which agency is responsible for the Kyoto protocol’s implementation?
• What incentives exist in Russia for energy conservation and for GHG reduction?
• What were the driving forces for carbon emissions over the last 15 years?
• What is the forecast for the future
History

• Pre-Kyoto:
  – Few JI projects;
  – The first economic analysis and GHG forecast (spring 1997).

• Kyoto protocol Ratification:
  – National Strategy Study on Climate policy 1998-1999;
  – In April 2001 Russian government decided to Ratify KP but…
  – Understanding the extent of its own bargaining power, Russia began informal negotiations with the EU, Japan and Canada;
  – October 2003: The Social Forum on Climate Change urged Russia to immediately ratify KP.
History (cont’)

• Bargaining with EU:
  – Russia asked for the guarantied purchase of AAU;
  – Kaliningrad;
  – WTO etc.

• Agreement on dual natural gas prices at EU /Russia summit April 2004
  – President Putin promised to speed up ratification

• August 2004: Illarionov (Economic Adviser to the President Putin) steps forward with economic analysis requesting Russian government to reject Kyoto Protocol
Simulation results

Forecast: Average CO2 emission in 2008-2012

10,000 Trials

9,899 Displayed

MMT of CO2

0.000
0.003
0.006
0.009
0.012
0.015
0.018
0.021

0.024

1,755.02
1,863.78
1,972.54
2,081.30
2,190.06

122
123
183
244

0
61
122
183

Probability
Frequency

Frequency Chart
Illarionov’s arguments to reject Kyoto Protocol
History (cont’ - 2)

• September 2004: The Social Forum on Climate Change presents comprehensive comments on Illarionov’s analysis;
• September 2004: Russian Government sent KP to the Duma for ratification;
• February 2005: Kyoto Protocol entered into force;
• Kyoto treaty could fail, in part, if Russia delays any longer.
Recovery growth in transition countries
Carbon emission vs. GDP
Carbon intensity in comparison with other countries
GDP carbon intensity (1992=100%)
Fossil fuel energy intensity
(1992=100%)
Driving forces for carbon emission

• There were no specific factors driving carbon emissions;

• CO2 intensity closely follows energy intensity; therefore a reduction potential should be in place and could be driven by incentives that specifically target carbon emissions;

• Structural changes in GDP driven by liberalization of international trade:
  – Cumulative FDI;
  – Cumulative import;
<table>
<thead>
<tr>
<th>Factors determining GHG dynamics</th>
<th>Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth</td>
<td>decline</td>
<td>increase</td>
</tr>
<tr>
<td>GDP structure</td>
<td>decline</td>
<td>decline</td>
</tr>
<tr>
<td>Fuel mix</td>
<td>decline</td>
<td>Increase?</td>
</tr>
<tr>
<td>New technologies</td>
<td>moderate decline</td>
<td>Decline – leading factor</td>
</tr>
<tr>
<td>Energy price elasticity</td>
<td>Moderate decline</td>
<td>Decline – important factor</td>
</tr>
</tbody>
</table>
Carbon dioxide emission as % of 1990 emission
Incentives

• Price response
  – Corresponding investments are needed

• Emission trading
  – Two $10M JI projects are not enough

• Domestic GHG management
  – Not in place yet

• Domestic environmental policy
  – Weak since environmental protection committee was abolished in 2000.

• External incentives are needed to curb Russian GHG emission;

• Russia serves as a compliance reserve for the EU, Japan and Canada.
## AAU Shortfall: Business-as-usual vs. Kyoto emissions target

<table>
<thead>
<tr>
<th>AAU Shortfall (million metric tons CO₂-equivalent)</th>
<th>EU</th>
<th>Japan</th>
<th>Canada</th>
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<tbody>
<tr>
<td>2000</td>
<td>1000</td>
<td>240</td>
<td></td>
</tr>
</tbody>
</table>

**Source**
- Study by Professor Mitsutsune Yamaguchi (2003)
- Climate Action Network Canada (2003)
Call option alternative to other instruments at carbon market

• Future demand is uncertain;
• Future price is unearned;
• Call option creates “safety net” for countries with potential shortfall;
• Call option creates incentives for Russia to reduce carbon emissions;
• Call option generates some revenue that could be used for collateral investments or to purchase bank guaranties etc.
Future negotiations

• Russia would most likely be able to continue with its 1990 target;
• Important issues for Russia:
  – Full crediting of carbon sinks;
    • This issue is also important for Canada and USA.
  – How to use coal recourses in the future?
    • This issue is critical for China and USA.