

**ASSESSMENT OF MACROECONOMIC EFFECTS OF POLICIES
AND MEASURES TO ACCELERATE THE TRANSITION
TO LOW-CARBON DEVELOPMENT PATHWAY**

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Introduction. Kazakhstan, former Soviet Socialistic Republic, demonstrates impressive economic growth rates, approximately 10 % annually in 2000-2007 and 7.5 % in 2010-2011. During last years Kazakhstan moved from lower middle income to upper middle income countries group. It is expected that by 2015 Kazakhstan will be classified as a high income country with 15 000 \$ GDP per capita level.

But high economic growth rates in Kazakhstan are associated with high GHG emissions growth rates. If we look at historical values of GHG emissions we can see that after decreasing during 1991-1998 due to post-Soviet crisis and starting from 1999 emissions has grown by 60 %. GDP elasticity of emissions in Kazakhstan during 2000-2012 is estimated as 0.5. It means that each additional 1% of GDP leads approximately to additional 0.5% of emissions.

According to majority of existing projections Kazakhstan will reach the 1990 level of emissions somewhere in 2020. In order to fulfill the obligations which Kazakhstan declared in Doha, 2012 (minus 7% by 2020 compared to 1990) the Concept of Transition to Green Economy was recently adopted in Kazakhstan.

A number of indicators and measures were declared in this Concept. For example gradual switching from current coal based generating capacities to wind, solar and nuclear power. Also starting from 2013 domestic emissions trading system with emissions cap was launched in Kazakhstan in pilot regime.

Methodology. The aim of the project is to analyze GHG mitigation policies (strategies) of Kazakhstan. We found that during 2013 CO₂ emissions in fact were not restricted at the level of 2010 as it was initially declared. The reason was a real threat of stagnation in economy. We also expect that during 2014-2015 emissions will continue to grow despite of officially adopted (declared) plans to restrict and decrease them.

In 2016 Kazakhstan is going to switch to benchmarking (emissions intensity) targets. We are going to analyze whether intensity targets flexible mechanism better allow for economic growth than emissions caps. For this purpose we will construct DSGE model of Kazakhstan with emissions, unexpected productivity shocks to economy and two types of carbon policy.