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## **THE MAIN DRIVERS OF GHG EMISSION REDUCTION IN BALTIC STATES**

### **Abstract:**

Lithuania, Latvia and Estonia successfully implemented Kyoto protocol commitments in the period from 2008 to 2012. Moreover, targets of the Europe 2020 strategy, in which countries committed to reduce the greenhouse gas emissions of 1990 by 20% until 2020 are also achievable for Lithuania, Latvia and Estonia. It is forecasted that the reduction of GHG emissions in 2020 in the Baltic States will be much higher than EU average target.

Baltic States have achieved significant reduction of GHG emissions during 1990-2015, especially in energy sector which is the major sources of GHG emissions in Baltic States. During the period 1990-2013, Lithuania's gross domestic product (GDP) per capita increased by 56.8 per cent, while GHG emissions per GDP and GHG emissions per capita decreased by 66.7 and 47.8 per cent, respectively. The major reason for the decrease in per capita emissions are the structural changes in the energy sector. At the same period, Latvia's population decreased by 24.4 per cent, GDP per capita increased by 64.0 per cent, while GHG emissions per GDP and GHG emissions per capita decreased by 66.4 and 44.8 per cent, respectively. Latvia's economy grew rapidly in the period 2000-2007, with a GDP increase of 82.0 per cent. Economic growth rates and climatic conditions have been the most important drivers for GHG emissions trends in Latvia. Estonia's gross domestic product (GDP) per capita increased by 85.1 per cent, while GHG emissions per GDP and GHG emissions per capita decreased by 65.1 and 35.3 per cent, respectively. Such significant GHG emission reduction in Estonia was driven by restructuring of the economy and efficiency improvement in the energy industry and energy demand sectors. There is a significant decoupling of emissions from economic growth in all three countries however countries have very different energy supply balances and implemented various climate change mitigation policies.

### **Keywords:**

GHG emissions, drivers, energy sector, Baltic States