

**It is estimated that South Korea's greenhouse gas emissions in 2021 will total
679.6 million tons**

*10:30 AM, Tuesday, June 28, 2022, Seo Heung-won, President of the Greenhouse Gas
Inventory and Research Center (Ministry of Environment)*

My name is Seo Heung-won, and I am the President of the Greenhouse Gas Inventory and Research Center.

The provisional estimate of South Korea's GHG emissions in 2021 is 679.6 million tons, which rose 3.5% from a year ago, and is 6.5% lower than the peak level of 2018.

The Greenhouse Gas Inventory and Research Center has been estimating and disclosing national provisional GHG emissions since 2020 by utilizing the emissions trading system data and the data from relevant institutions, including Monthly Energy Statistics, Import & Export Statistics, and Value Trend Survey.

The provisional estimates for GHG emissions obtained one year before final statistics will be used for policy-making, operation, and analyses associated with greenhouse gas emissions.

According to our analysis, global GHG emissions rebounded higher in 2021 since manufacturing is gradually recovering worldwide, and the travel demand is growing after the COVID-19 pandemic.

The country's GHG emissions growth rate is 3.5%, lower than the 5.7% global average

and that of other major countries like the US, the EU, and China.

GHG emissions per unit of GDP, an index of GHG emission efficiency, have improved steadily to 356 tons per KRW 1 billion since 2011. The emissions in 2021 grew by 3.5%, whereas GDP increased by 4% YoY, continuing a trend of improvement.

The energy sector generates the largest share of greenhouse gas emissions, 86.9% of all emissions, with 590.6 million tons. 7.5% of GHG emissions were generated during industrial processes, and the agriculture and waste management sectors generated 3.1% and 2.5% of emissions, respectively.

Production and fuel consumption increased in the energy sector, especially in manufacturing, power generation, and transport, leading to a 3.6% increase in GHG emissions from the 2020 level.

Both chemicals and steel saw increased GHG emissions in the manufacturing sector of 5.8 and 4.4 million tons, respectively. As a result, total emissions rose by 12.7 million tons.

Power generation is estimated to have increased 4 million tons of GHG emissions over the previous year due to growing power demand brought on by recovered industrial activities.

Despite a 4.5% increase in power generation in 2021, GHG emissions only rose by 1.8%, thanks to political initiatives including reduced coal-fired power generation, the operation of high-efficiency coal-fired facilities, and increasing renewable energy generation, and growing liquefied natural gas supply with a comparatively lower GHG emission unit.

In the transport sector, lifting the social distancing measures for COVID-19 led to a rise in travel demand, bringing about a 1.6 million tons increase in GHG emissions from the previous year.

Due to cold waves at the beginning of the year, the building sector, which encompasses commercial, public, and residential buildings, saw an increase in gas consumption of an estimated 600,000 tons from the previous year.

Our analysis demonstrated that 51 million tons of GHGs were emitted in the industrial sector, up 5.2% from the previous year, due to rising cement and semiconductor output.

As for the agriculture sector, decreased total cultivation areas offset a rise in domestic animals. Total GHG emissions from agriculture were found to be approximately 21.2 million tons, which rose by 0.9%. Recycling and accumulated landfills declined in the waste sector even though waste generation increased. Consequently, GHG emissions from waste are estimated to be around 16.8 million tons, down 1.6% from the previous year.

In a broad sense, global energy consumption increased in 2021 as industries that had contracted due to the COVID-19 pandemic began to recover. In Korea, GHG emissions appear to have risen with increasing electricity output, resurgent industrial production, and growing transport fuel consumption.

We anticipate that there will be a rising trend in energy consumption in 2022. We need to exert more aggressive, crisis-driven efforts to cut GHG emissions to achieve national GHG emissions reduction targets by 2030 and carbon neutrality by 2050.

It concludes my briefing. Thank you.