



Greenhouse Gas Emissions in Albania

Albania Numbers at a Glance (2011)

8 MtCO_{2e}*
Total GHG emissions
(0.02% of world total)
World: 46,906 MtCO_{2e}

2,904,780
Population
World: 6,964,618,177

2.77
tCO_{2e} per capita
World: 6.73 tCO_{2e}

US\$11,009 Million
GDP**
World: US\$54,034 Billion

730
tCO_{2e}/million US\$ GDP
World: 868 tCO_{2e}/million US\$ GDP

-4 MtCO_{2e} (-34%)
Change in GHG emissions (1990–2011)
World: +12,969 MtCO_{2e} (+38%)

Source for all Numbers at a Glance values: WRI CAIT 2.0, 2015.

Emissions including Land-Use Change and Forestry

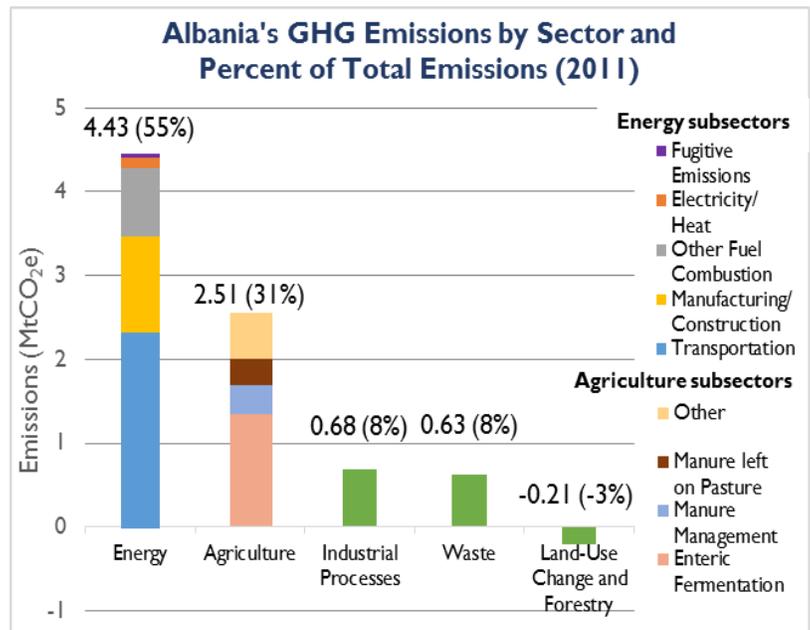
*Million metric tons of carbon dioxide equivalent

**Gross Domestic Product (GDP) in constant 2005 US\$

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Greenhouse Gas (GHG) Emissions by Sector

Albania's GHG profile is dominated by emissions from the energy sector, followed by emissions from agriculture. Energy is responsible for over half of the country's emissions. Transportation accounts for 52%, manufacturing and construction 26%, other fuel combustion 18%, electricity and heat 3%, and fugitive emissions 1% of energy emissions. Agriculture is responsible for nearly one-third of national emissions.



Sources: WRI CAIT 2.0, 2015; FAOSTAT, 2015
Note: Totals do not add up to 100% due to rounding

Change in GHG Emissions in Albania (1990-2011)

Albania's emissions decreased by 34% from 1990 to 2011.¹ As illustrated by the graph on the next page, emissions decreased from 1990 to 1998 and then grew from 1998 to 2005. Since then, fluctuation in the annual change in emissions has not shown a clear pattern of growth or decline. At the sector level, average annual change has been as follows: energy (-1%), agriculture (-1%), industrial processes (+66%), waste (+1%), and land use change and forestry (+35%).

Energy: As of 2013, Albania's total primary energy supply had not yet returned to 1990 levels.² The 2013 share of total primary energy supply consisted of oil (58%), hydro (28%), biofuels/waste (10%), coal (3%), and natural gas and other renewables (1%). The main consuming sector is transportation, followed by the residential and industry sectors. High transportation emissions reflect road transport being the main mode for both goods and passengers, and investment to rehabilitate and develop the national road network.³ Rapid development of the road network has also encouraged growth in the number of motor vehicles.

Grid power generation is entirely hydroelectric.⁴ The country is known for its enormous hydropower potential, although it has exploited only about one third and the amount of energy produced can vary significantly depending on the amount of precipitation and river flow volumes.⁵ Albania had an electricity deficit of 2.5 million kWh in 2011. The [Second National Communication](#)

¹ World Resources Institute Climate Analysis Indicators Tool (WRI CAIT) 2.0, 2015

² International Energy Agency (IEA), 2015. Statistics for Albania: <http://www.iea.org/countries/non-membercountries/albania/>. See Energy Balances.

³ Republic of Albania, 2009. Albania's Second National Communication (SNC) to the Conference of Parties under the United Nations Framework Convention on Climate Change.

⁴ IEA, 2015. See Electricity / Heat.

⁵ Renewable Energy and Energy Efficiency Partnership (REEGLE). Albania (2012) profile. Viewed November 8, 2015: <http://www.reegle.info/policy-and-regulatory-overviews/AL>

(SNC)⁶ to the UNFCCC projects that electricity generation is likely to more than double from 2000 to 2025, mostly through new thermal power plants fueled primarily by fossil fuels⁷ whose impact will cause new GHG emissions. This new capacity is needed to offset a projected decrease of 700 GWh of hydro power generation due to projected changes in climate conditions. The share of primarily fossil fuel-based thermal power generation is expected to increase to 60% in 2025.

Agriculture: Agriculture is among the most important economic sectors, employing over half the Albanian population. According to the SNC, agriculture consists mostly of subsistence farming on small farms of 1.3 hectares that produce annual crops such as wheat, alfalfa, vegetables, and fruit trees. Cattle are the main contributor of methane emissions from enteric fermentation, followed by sheep. Livestock constitutes over half of the value of agricultural production. The density of livestock per hectare of land remains high, although the numbers of ruminants showed a decrease from 2000 to 2007. In 2011, the main sources of agriculture emissions were enteric fermentation (16% of total national GHG emissions), manure left on pasture (4%), and manure management (4%), with five other sub-sectors responsible for the remainder of agriculture emissions.⁸

Carbon Intensity: GHG Emissions Relative to Gross Domestic Product (GDP)

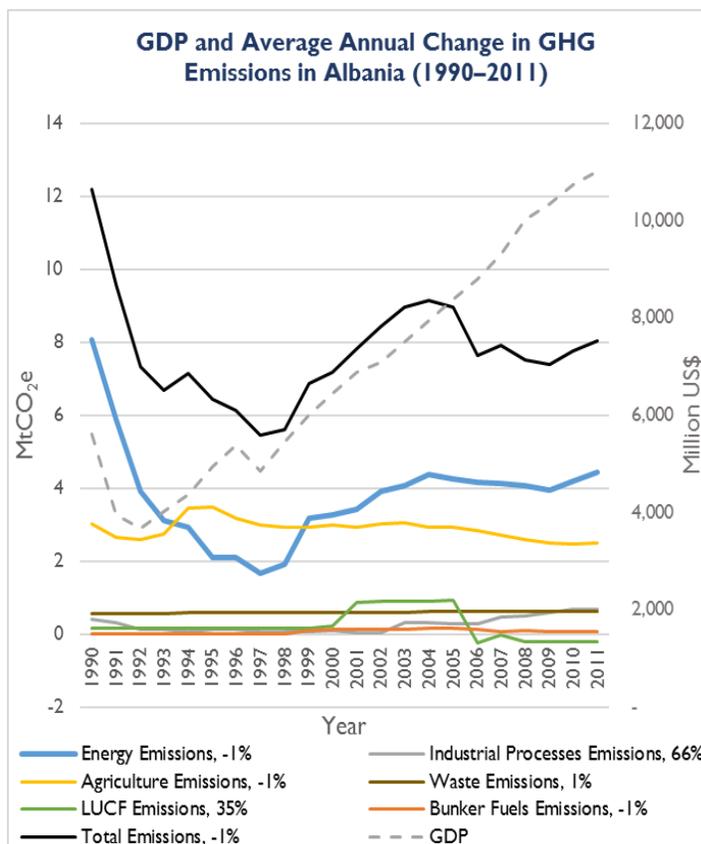
WRI CAIT data show that GDP grew from US\$5.6 to US\$11 billion from 1990-2011, while total emissions decreased by 34%, indicating that carbon intensity decreased.

Albania's SNC acknowledges that its carbon dioxide emissions per GDP was seven to eight times higher than the average for industrialized countries in 2000, due to old technology and a large share of energy resources being consumed in the residential and service sectors for people's comfort, rather than by industry. The [Intended Nationally Determined Contribution \(INDC\)](#) notes Albania's aspiration to decouple GHG emissions from economic growth and maintain the low carbon intensity of its power generation sector.

Climate Change Mitigation Targets and Plans

In its INDC, Albania commits to reducing carbon dioxide emissions by 11.5% (708 kilotons) in 2030, compared to a baseline that it describes as a "business as usual scenario of emissions projections based on economic growth in the absence of climate change policies, starting from 2016."

The INDC will serve as the basis of the upcoming Environmental and Climate Change strategy. Other national policies include the National Climate Change Strategy, which consists of a set of priorities to integrate climate change concerns into other economic development plans,⁹ the updated National Energy Strategy 2006-2020, and the National Energy Efficiency Action Plan (2005). As a member of the European Energy Community, in accordance with the EU Renewable Energy Directive, Albania prepared and adopted the [2015-2020 National Action Plan for Renewable Energy Resources](#).



Source: WRI CAIT 2.0, 2015

⁶ Republic of Albania. Albania's Second National Communication to the Conference of Parties under the United Nations Framework Convention on Climate Change, November 2009.

⁷ The SNC states that new thermal generation would be primarily fossil-fuel generation based on petroleum, fuel oil, imported natural gas, as well as solar thermal generation.

⁸ Food and Agriculture Organization of the United Nations Statistics Division (FAOSTAT), viewed November 7, 2015: <http://faostat3.fao.org/browse/area/3/E>.

⁹ Hido, Edmond, 2012. Resource Efficiency Gains and Green Growth Perspectives in Albania. Frederich Ebert Stiftung. See <http://library.fes.de/pdf-files/ld-moe/09455.pdf>.