

# ALBANIA



## Country at a glance

- Population: 3.20 million (2010) [1]
- Total area: 28,748 sq. km [2]
- Carbon emissions per capita: 1.17 metric tons (2010) [3]
- Energy consumption per capita: 25.14 MWh (2010) [4]
- Percentage of global carbon emissions: 0.01% (2010) [3]



**Ferry on Lake Koman, Albania**

The Koman hydroelectric powerstation was built near the settlement of Koman, northern Albania. It is one of the largest hydroelectric power stations built along the Drin river with an installed capacity of 600MW.

View of Lake Koman from a ferry by Albinfo. Permission under CC BY-SA.3.0 ES License en.wikipedia.org/wiki/File:Ferry\_Lake\_Koman.jpg

**Table 1 Breakdown of energy use, electricity and heat generation, 2010**

	Primary energy sourced within country		Energy imports minus exports	Primary energy used within the country <sup>(a)</sup>			Electricity Generation <sup>(b)</sup>		Heat Generation <sup>(c)</sup>		
	unit	ktoe	%	ktoe	ktoe	GWh	%	GWh	%	GWh	%
Coal, including brown coal & peat		3	0	55	58	678	3	0	0	0	0
Oil fuels		744	46	590	1,226	14,254	57	1	0	0	0
Natural gas		12	1	0	12	134	1	0	0	0	0
Nuclear		0	0	0	0	0	0	0	0	0	0
Hydroelectric		652	40	0	652	7,580	30	7,579	100	0	0
Biofuels and waste		205	13	0	205	2,384	9	0	0	0	0
Solar photovoltaics		0	0	0	0	0	0	0	0	0	0
Solar thermal		7	0	0	7	78	0	0	0	0	0
Tide, wave and ocean		0	0	0	0	0	0	0	0	0	0
Wind		0	0	0	0	0	0	0	0	0	0
Geothermal		0	0	0	0	0	0	0	0	0	0
Electricity (imported)		0	0	-82	0	0	0	0	0	0	0
Sub total Renewables		863	53	0	863	10,042	40	7,579	100	0	0
<b>Totals</b>		<b>1,622</b>	<b>100</b>	<b>563</b>	<b>2,159</b>	<b>25,108</b>	<b>100</b>	<b>7,580</b>	<b>100</b>	<b>0</b>	<b>0</b>

Source: Based on World Energy Statistics and Balances Database 2012, "World Energy Balances." © OECD/IEA, 2012.

Notes:

Standard conversion used is 1 ktoe = 11.63 GWh

(a) Sum of energy sourced within country, energy imports minus exports, international marine and aviation bunkers and stock change flows.

(b) Includes all electricity generation, including any exported.

(c) Does not include electrical heating. Includes waste heat recovery from electricity generation plants.

**Table 2 Breakdown of transport fuel use, 2010**

(in ktoe)	Total transport mix	%	Domestic aviation	Road	%	Rail	Pipeline transport	Domestic navigation	Non-specified (transport)
Oil products	742	100	0	729	100	3	0	10	0
Natural gas	0	0	0	0	0	0	0	0	0
Biofuels and waste	0	0	0	0	0	0	0	0	0
Electricity	0	0	0	0	0	0	0	0	0
Sub total	0	0	0	0	0	0	0	0	0
Renewables	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>742</b>	<b>100</b>	<b>0</b>	<b>729</b>	<b>100</b>	<b>3</b>	<b>0</b>	<b>10</b>	<b>0</b>

Source: Based on World Energy Statistics and Balances Database 2012, "World Energy Balances." © OECD/IEA, 2012.

## Stand on climate change

Albania ratified the Kyoto Protocol on 1 April 2005 and came into force on 30 June 2005. Although not contributing much to climate change, Albania has been considerably impacted by climate change in recent years.

## National climate change programmes

Some important documents that address climate change [5]:

- National Strategy for Development and Integration (2007-2013)
- Inter-sectoral Environmental Strategy 2007-2013
- First National Communication for UNFCCC
- Second National Communication for UNFCCC
- Policy document of Carbon Financing in Albania, 2009
- Plan of action for the implementation of the Policy Document for Carbon Financing in Albania

The Ministry of Environment, Forest and Water Administration is the national environmental authority and is also the Designated National Authority (DNA) on climate change and the Clean Development Mechanism (CDM) to the UNFCCC for Albania.

In the UNFCCC in November 2009, Albania stated that it aims to reduce GHG emissions by 48% by year 2025 [6]. It identified the energy sector as the major contributor to GHG emissions, with transport being the fastest growing subsector. Albania has several projects in the area of renewable energy, energy efficiency and carbon financing. It has also improved its legal framework in support of implementation of the Kyoto Protocol and the Clean Development Mechanism (CDM). However, there is poor public awareness of climate change effects. The sectoral approaches in which Albania is taking measures to mitigate climate change are:

Agriculture and Livestock sector:

In 2000, the agricultural sector contributed 35% of overall GHG emissions. To help reduce these emissions, six strategies were evaluated in Albania's Second National Communication [7]:

- Increase feed digestibility
- Reduce overgrazing pressure on marginal lands to improve quality
- Improve diet quality and nutrient balance
- Improve animal genetics and reproduction
- Increase nitrogen use efficiency by matching crop demand with nitrogen supply
- Improve livestock manure management

Other measures include ensuring crop rotation and monitoring the amount of fertilizers, manure and nutrients used when growing crops. Additional measures such as installation of systems to monitor the usage of anaerobic digesters to reduce methane emission from livestock waste were also implemented.

Waste Management sector:

Specific measures such as emissions reduction from landfill sites through monitoring the carbon emissions were implemented. There are also measures to ensure there are environmentally sound landfills with methane recovery and municipal solid waste incinerators.

Land Use of Change and Forestry (LUCF) sector:

Mitigation measures Identified include the following [8]:

- Preparation of sustainable forestry development strategy and action plan, taking climate change into account
- Introduce action plans related to reforestation and forest protection
- New legislation and enforcement of existing legislation that prohibits illegal cutting and related issues
- Total CO<sub>2</sub> emissions and removal from LUCF to decrease from 2082.66 Gg (emissions in 2000 to 850.9Gg in 2025 [9])

Education, training, public awareness sector:

A communication strategy on climate change has been developed to educate people about climate change impacts. This is essential to ensure public engagement in helping to reduce carbon emissions through small acts [10].

Transport sector:

The member countries of the European Conference of Ministries of Transport (ECMT) are undertaking the following measures as suggested by ECMT in terms of emissions reduction:

- Cost effectiveness in transport policies to ensure that there is low carbon emission from vehicles
- Fuel efficiency to ensure fuels minimize carbon emissions
- Differentiating the tax on vehicles based on the amount of carbon emissions from each vehicle
- Use vehicle components that ensure greater fuel efficiency
- Vehicle fuel efficiency standards to be made clear so that when vehicles are bought or used this standard serves as a reference point
- Monitoring the cost of carbon emissions in heavy vehicles
- Usage of biofuels
- Traffic management and urban planning to minimize carbon emissions
- Require maritime and aviation transport to monitor their carbon emissions [11]

Industrial sector:

The cement industry is anticipated to be the largest contributor in 2025. Total CO<sub>2</sub> emissions are expected to reach 1049 Gg [12].

## Ministries involved in climate change/energy policy making:

Ministries involved	Web links
French Ministry of Defence	<a href="http://www.mod.gov.al/">www.mod.gov.al/</a>
Ministry of Finance	<a href="http://www.minfin.gov.al/">www.minfin.gov.al/</a>
Ministry of Agriculture	<a href="http://www.mbumk.gov.al/">www.mbumk.gov.al/</a>
National Agency of Natural Resources	<a href="http://www.akbn.gov.al/">www.akbn.gov.al/</a>
Albanian Centre for Economic Research (ACER)	<a href="http://www.acer.org.al/">www.acer.org.al/</a>
Ministry of Economy, Trade and Energy	<a href="http://www.mete.gov.al/">www.mete.gov.al/</a>
Ministry of Environment, Forest and Water Administration	<a href="http://www.moe.gov.al/en/">www.moe.gov.al/en/</a>

## Education institutes involved in climate change/energy policy making:

Education Institutes involved	Web links
Energy Sector Management Assistance Program	<a href="http://www.esmap.org/">www.esmap.org/</a>
Goteborgs Universitet	<a href="http://www.gu.se/">www.gu.se/</a>
Swedish University of Agricultural Sciences	<a href="http://www.slu.se/en/">www.slu.se/en/</a>
Faculty of Agriculture, University of Tirana	<a href="http://www.ubt.edu.al/index.php?lang=english">www.ubt.edu.al/index.php?lang=english</a>

## References

- [1] "World Population Prospects: The 2010 Revision." Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat.
- [2] "CIA - The World Factbook." Available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/th.html>. [Accessed: 12-Mar-2013].
- [3] CO<sub>2</sub> Emissions from Fuel Combustion Statistics database 2012, "Indicators for CO<sub>2</sub> emissions." © OECD/IEA, 2012.
- [4] World Energy Statistics and Balances database 2012, "World Energy Balances." © OECD/IEA, 2012.
- [5] Climate Change mitigation - Albania. European Environment Agency. Available at: [http://www.eea.europa.eu/soer/countries/al/soertopic\\_view?topic=climate%20change](http://www.eea.europa.eu/soer/countries/al/soertopic_view?topic=climate%20change)
- [6] Country Profile – Albania. Haki Kola and Enkeleda Pjetri. Food and Agricultural Organization. Available at: <http://www.fao.org/docrep/014/k9589e/k9589e03.pdf>
- [7] Climate Change and Agriculture Country Note – Albania. February 2011. World Bank. Available at: <http://siteresources.worldbank.org/ECAEXT/Resources/258598-1277305872360/7190152-1303416376314/AlbaniaupdateCountryNote-final.pdf>
- [8] Second National Communication – Ministry of Environment, Forestry and Water Administration. Government of Albania. (Page 62). Available at: <http://unfccc.int/resource/docs/natc/albnc2.pdf>
- [9] Second National Communication – Ministry of Environment, Forestry and Water Administration. Government of Albania. (Page 148). Available at: <http://unfccc.int/resource/docs/natc/albnc2.pdf>
- [10] Second National Communication – Ministry of Environment, Forestry and Water Administration. Government of Albania. (Page 158). Available at: <http://unfccc.int/resource/docs/natc/albnc2.pdf>
- [11] Cutting Transport CO<sub>2</sub> Emissions – European Conference of Ministers of Transport. Available at: <http://www.internationaltransportforum.org/Pub/pdf/07CuttingCO2.pdf>
- [12] Second National Communication – Ministry of Environment, Forestry and Water Administration. Government of Albania. (Page 152). Available at: <http://unfccc.int/resource/docs/natc/albnc2.pdf>