

ASSESSING CLIMATE PROTECTION PERFORMANCE:  
G20 COUNTRY PROFILE

# Italy

This Country Profile assesses Italy's past and present actions to help mitigate climate change, and its Intended Nationally Determined Contribution (INDC) towards future global action. The profile summarises the respective findings of the Climate Change Performance Index (CCPI)<sup>i</sup> and Climate Action Tracker (CAT)<sup>ii</sup>.



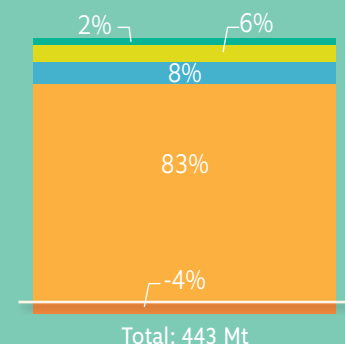
## COUNTRY CHARACTERISTICS

KEY INDICATORS*	ITALY	G20
Population [million]	60	4,587
GDP per capita (PPP) [US\$]	26,351	14,505
Share of global GHG emissions	1.0%	74.2%
Share of global GDP	1.9%	80.3%
Share of global population	0.9%	64.7%
GHG per capita [t CO <sub>2</sub> e/cap]	7.4	7.2
Energy intensity of the economy (TPES/GDP [MJ/US\$])	4.3	6.6
Carbon intensity of energy supply (CO <sub>2</sub> /TPES [t CO <sub>2</sub> /TJ])	56.4	63.1
Carbon intensity of the economy (CO <sub>2</sub> /GDP [kg CO <sub>2</sub> /US\$])	0.23	0.42
Share of fossil fuels in primary energy supply	83.9%	83.4%
Share of coal in electricity production	18.2%	35.7%
Share of renewables in primary energy supply	13.1%	11.1%

\*year 2012 (unless stated otherwise)  
GDP = gross domestic product  
GHG = greenhouse gas emissions (net emissions including sinks from agriculture, forestry, and other land uses)  
TPES = total primary energy supply  
PPP = purchasing power parity in prices of 2005

## EMISSIONS AND EMISSIONS TRENDS

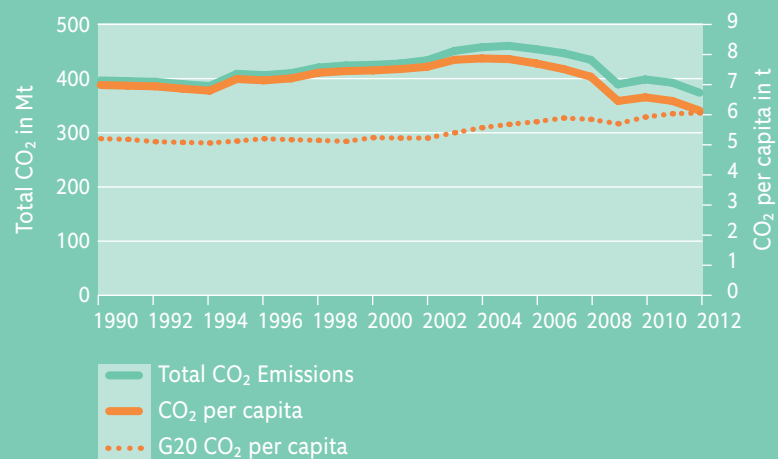
COMPOSITION OF GHG – ITALY 2012



■ F-Gases  
■ N<sub>2</sub>O\*\*  
■ CH<sub>4</sub>\*\*  
■ CO<sub>2</sub>\*\*  
■ CO<sub>2</sub> from LULUCF\*

\* from Energy & Industry  
\*\* including LULUCF

ENERGY-RELATED CO<sub>2</sub>-EMISSIONS – ITALY



Source: UNFCCC 2015

Source: IEA 2014

Carbon dioxide (CO<sub>2</sub>) accounts for some 83% of Italy's greenhouse gas (GHG) emissions. Energy-related CO<sub>2</sub> emissions increased from 1990 to 2005, and have since fallen below their 1990 level. Per capita emissions are close to the G20 average. Italy's

emissions level is rated medium compared with other G20 countries, in the CCPI ranking. The fall in emissions over the past decade contributes a strongly positive trend.

#### CCPI EVALUATION OF ITALY'S EMISSIONS



Source: CCPI 2015

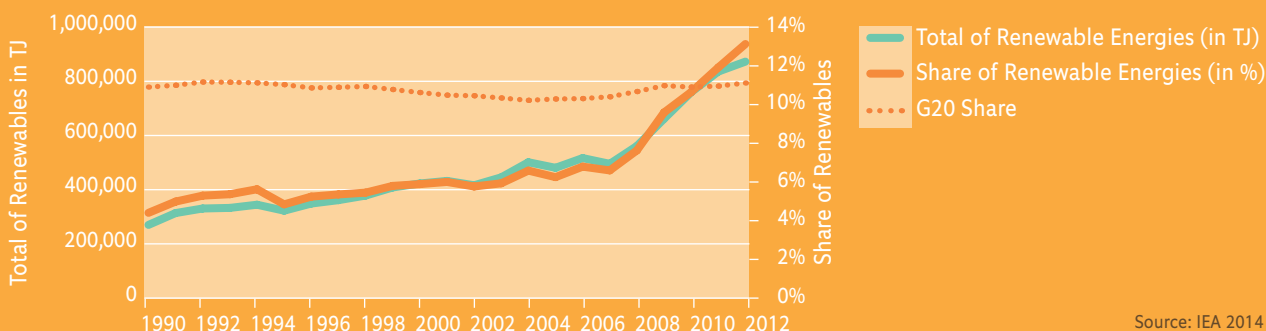
## DECARBONISATION

Decarbonisation of the global economy will be a crucial element for staying below the 2°C threshold. Two important steps towards achieving such decarboni-

sation are a shift from fossil fuels to renewable energy sources, and a reduction in carbon and energy intensity<sup>iii</sup>.

## RENEWABLE ENERGY

### RENEWABLE ENERGY IN ITALY



Source: IEA 2014

Both, the absolute production of renewable energy and its share of the energy supply have risen strongly, doubling between 2007 and 2012. In the CCPI rank-

ing, Italy's level of renewables is rated as medium compared with other G20 members, while its rapid growth contributes a strongly positive trend.

#### CCPI EVALUATION OF ITALY'S RENEWABLE ENERGY



Source: CCPI 2015

## ENERGY- AND CARBON INTENSITY

The measurement of carbon and energy intensity uses macroeconomic data. A country's progress towards decarbonisation is indicated by decoupling of its GDP growth from growth in carbon and energy

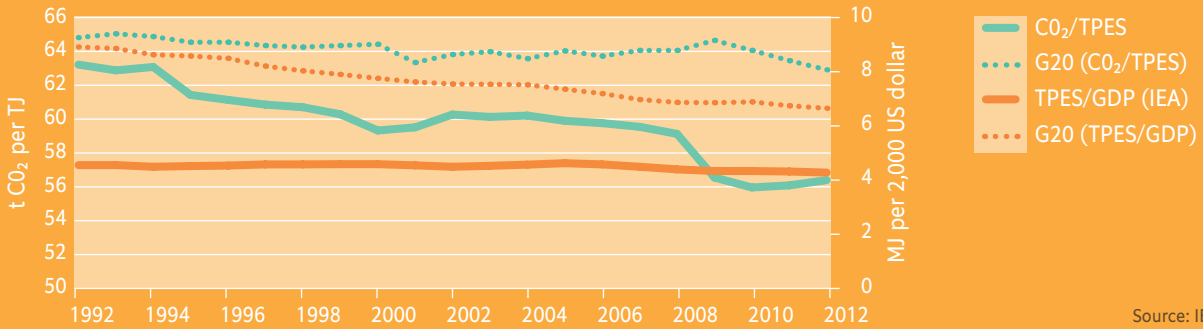
intensity. The latter are measured as CO<sub>2</sub> emissions per unit of Primary Energy Supply (CO<sub>2</sub>/TPES) and Primary Energy Supply per unit of GDP (TPES/GDP) respectively.

i Climate Change Performance Index is jointly published by Germanwatch and Climate Action Network Europe, a coalition of over 120 member organizations. The Index is 80% based on objective indicators of emissions trend and level, renewable energies and energy efficiency and 20% on national and international climate policy assessments by more than 300 experts from the respective countries. [www.germanwatch.org/en/ccpi](http://www.germanwatch.org/en/ccpi)

ii Climate Action Tracker is an independent scientific analysis produced by four research organizations: Climate Analytics, Ecofys, the Potsdam Institute for Climate Impact Studies and the NewClimate Institute. [www.climateactiontracker.org](http://www.climateactiontracker.org)

iii Another indicator is energy efficiency. However, energy efficiency is complex to measure, requiring a sector by sector analysis, where comparable data sources across G20 countries are not available at present.

## ENERGY- AND CARBON INTENSITY IN ITALY



Source: IEA 2014

The energy intensity of Italy's economy (TPES/GDP) has hardly changed in recent years, at one third below the G20 average. The carbon intensity of

energy supply (CO<sub>2</sub>/TPES) has fallen strongly. In the CCPI, Italy's level of energy and carbon intensity is evaluated as medium with a positive trend.

### CCPI EVALUATION OF ITALY'S ENERGY AND CARBON INTENSITY



Source: CCPI 2015

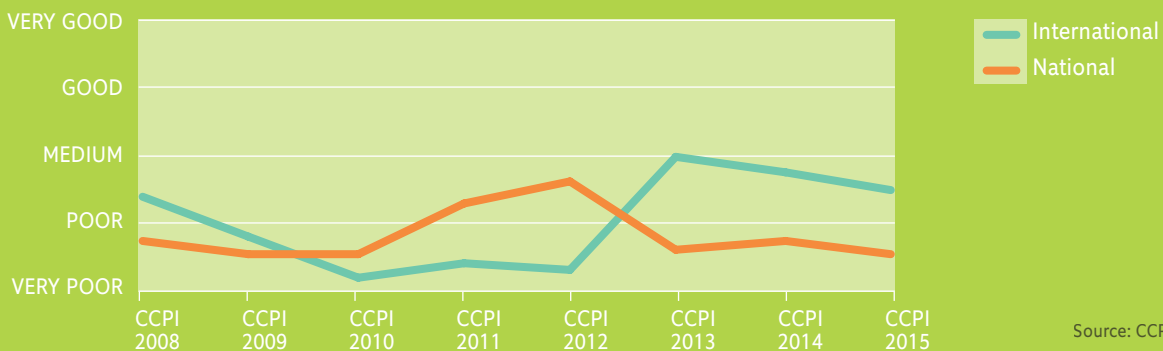
## CLIMATE POLICY PERFORMANCE

### EVALUATION OF RECENT CLIMATE POLICY

The CCPI evaluates a country's performance in national and international climate policy through feedback from national energy and climate experts.

The experts assess the country's performance in international negotiations, national policy making and in the implementation of climate policies.

#### ITALY'S CLIMATE POLICY



Source: CCPI 2008-2015

Italy's national climate policy performance is rated as very poor compared with other countries. Experts have criticised recent changes in domestic renewable energy policy, which has cut investment and

slowed growth in the sector. They also point out that the country lacks a coherent climate and energy policy.

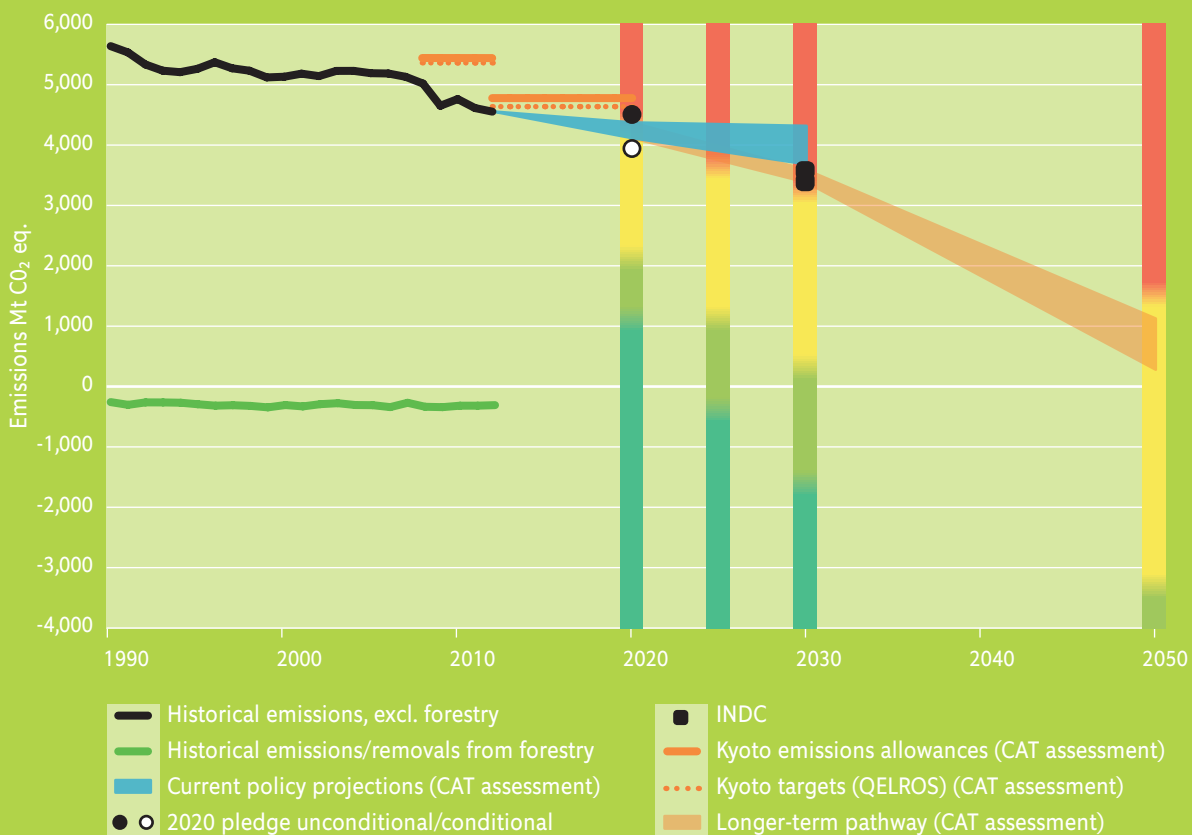
### CCPI EVALUATION OF ITALY'S CLIMATE POLICY



Source: CCPI 2015

# COMPATIBILITY OF NATIONAL CLIMATE TARGETS WITH 2°C

As an EU member state, Italy did not submit its own Intended Nationally Determined Contribution (INDC) or emissions reduction target towards COP21.



Source: © www.climateactiontracker.org/Climate Analytics/Ecofys/ NewClimate/PIK

Under its INDC, the EU proposed on 6 March 2015 a binding, economy-wide target to cut domestic greenhouse gas emissions by at least 40% below 1990 levels in 2030. No individual EU member state has its own INDC, but some countries, such as Germany, may have more ambitious, domestic targets.

The Climate Action Tracker (CAT) rates the EU emissions target as “medium”, meaning that the INDC is not consistent with limiting warming below 2°C. It would require other countries to make a comparably greater effort and much deeper emissions reductions.

The overall level of GHG emissions reductions proposed in the INDC is not yet sufficient to fall within the range of approaches for fair and equitable emission reductions by the EU28. Current policies are projected to reduce domestic emissions by 23–35% below 1990 levels in 2030, and so do not yet put the EU on a trajectory towards meeting either its 2030 or 2050 targets. The EU’s Emissions Trading Scheme is the bloc’s most important instrument to achieve its 2020 and 2030 emissions reduction targets. However, an accumulated surplus of emissions allowances could dilute the 40% GHG target by 7% in 2030. It is therefore important that the EU creates a robust market reserve for eliminating that surplus, to keep in line with the 40% GHG target.

CAT EVALUATION THE EU’S INTENDED NATIONALLY DETERMINED CONTRIBUTIONS (INDC)

