

ASSESSING CLIMATE PROTECTION PERFORMANCE:
G20 COUNTRY PROFILE

Indonesia

This Country Profile assesses Indonesia'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)ⁱ and Climate Action Tracker (CAT)ⁱⁱ.



COUNTRY CHARACTERISTICS

KEY INDICATORS*	INDONESIA	G20
Population [million]	246	4,587
GDP per capita (PPP) [US\$]	7,895	14,505
Share of global GHG emissions**	3.8%	74.2%
Share of global GDP	2.4%	80.3%
Share of global population	3.5%	64.7%
GHG per capita [t CO ₂ e/cap]**	6.0	7.2
Energy intensity of the economy (TPES/GDP [MJ/US\$])	4.8	6.6
Carbon intensity of energy supply (CO ₂ /TPES [t CO ₂ /TJ])	48.7	63.1
Carbon intensity of the economy (CO ₂ /GDP [kg CO ₂ /US\$])	0.22	0.42
Share of fossil fuels in primary energy supply	66.5%	83.4%
Share of coal in electricity production	48.7%	35.7%
Share of renewables in primary energy supply	33.4%	11.1%

*year 2012 (unless stated otherwise)

**year 2010

GDP = gross domestic product

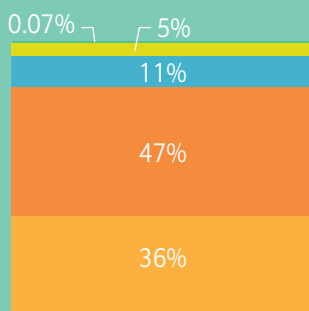
GHG = greenhouse gas emissions (net emissions including sinks from agriculture, forestry, and other land uses)

TPES = total primary energy supply

PPP = purchasing power parity in prices of 2005

EMISSIONS AND EMISSIONS TRENDS

COMPOSITION OF GHG – INDONESIA 2010

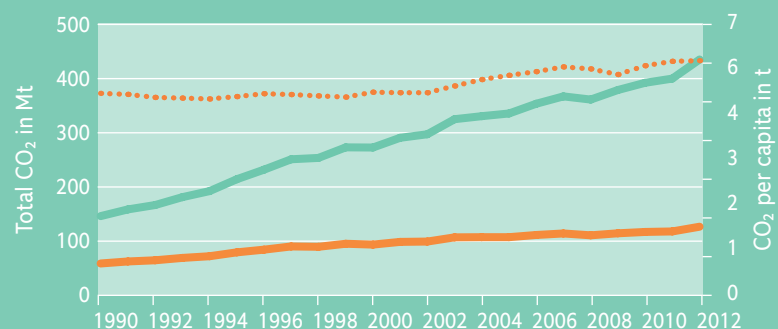


■ F-Gases
■ N₂O
■ CH₄
■ CO₂ from LULUCF**
■ CO₂ excl. LULUCF*

* from Energy, Industry & other

Source: IEA 2014; **CAT 2015

ENERGY-RELATED CO₂-EMISSIONS – INDONESIA



— Total CO₂ Emissions
— CO₂ per capita
... G20 CO₂ per capita

Source: IEA 2014

Carbon dioxide (CO₂) emissions from Land Use, Land Use Change and Forestry (LULUCF) account for nearly 50% of Indonesia's greenhouse gas (GHG) emissions. Indonesia's energy-related CO₂ emissions are rising, but from a very low level. Per capita emis-

sions are rising slowly, but are about a third of the G20 average. This is reflected in the CCPI evaluation, where Indonesia is rated good for its emissions level, with a negative trend.

CCPI EVALUATION OF INDONESIA'S EMISSIONS



Source: CCPI 2015

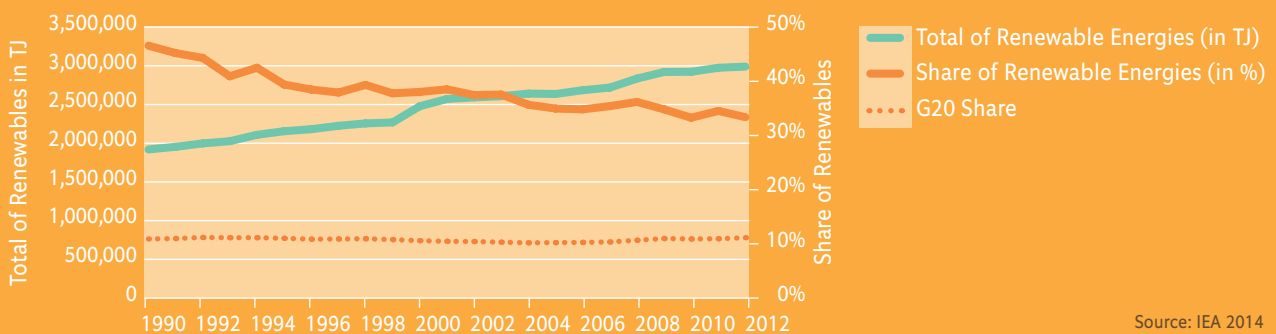
DECARBONISATION

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

bonisation are a shift from fossil fuels to renewable energy sources, and a reduction in carbon and energy intensityⁱⁱⁱ.

RENEWABLE ENERGY

RENEWABLE ENERGY IN INDONESIA



Source: IEA 2014

Although the absolute amount of renewable energy production is rising, the share of renewable energy in the country's total energy supply is falling. Nevertheless, its 33% share of renewables is about three times

the G20 average, Indonesia is one of the best performers in the sector across the G20, reflected in a good CCPI ranking. The rising absolute production of renewables is reflected in a strongly positive trend.

CCPI EVALUATION OF INDONESIA'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

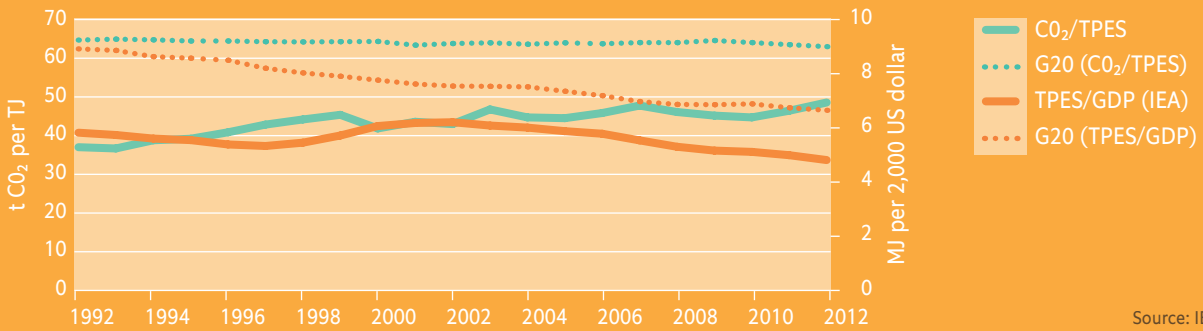
intensity. The latter are measured as CO₂ emissions per unit of Primary Energy Supply (CO₂/TPES) and Primary Energy Supply per unit of GDP (TPES/GDP) respectively.

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

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

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 INDONESIA



Source: IEA 2014

While the energy intensity of Indonesia's economy (TPES/GDP) is falling, the carbon intensity of energy supply (CO₂/TPES) is increasing. Both indicators are below the G20 average. The carbon intensity of energy supply rose slightly in the last five years, while

the energy intensity of the economy declined, resulting in a slightly positive, five-year trend. The CCPI ranks Indonesia in energy and carbon intensity as relatively good.

CCPI EVALUATION OF INDONESIA'S ENERGY AND CARBON INTENSITY



Source: CCPI 2015

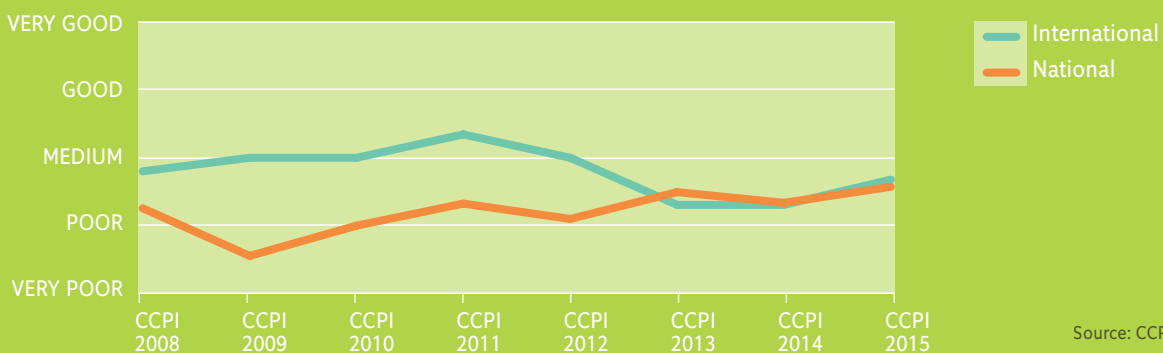
CLIMATE POLICY PERFORMANCE

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.

INDONESIA'S CLIMATE POLICY



Source: CCPI 2008-2015

International and national climate policy performance is rated as being poor in the CCPI policy evaluation. National experts value the country's legisla-

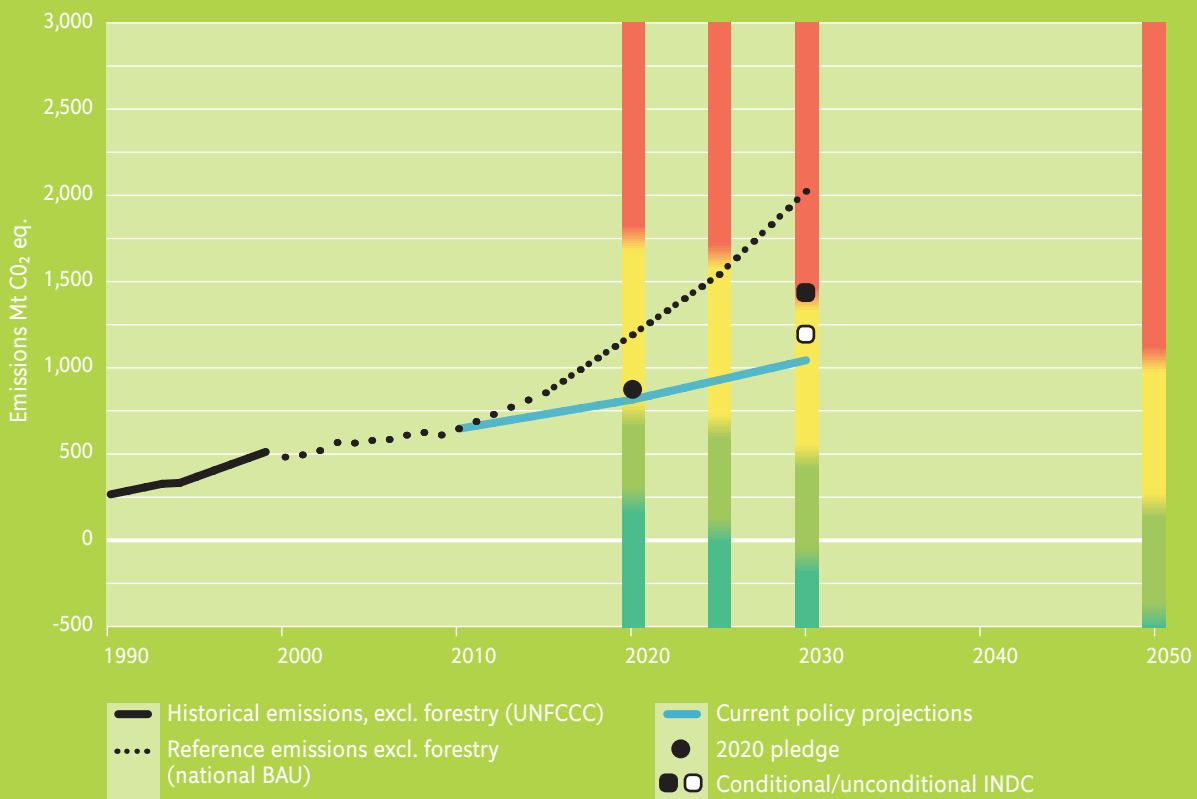
tion, which includes feed in tariffs for renewable energy, while criticising poor implementation.

CCPI EVALUATION OF INDONESIA'S CLIMATE POLICY



Source: CCPI 2015

COMPATIBILITY OF NATIONAL CLIMATE TARGETS WITH 2°C



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

Indonesia's Intended Nationally Determined Contribution (INDC), released on 24 September 2015, includes an unconditional 2030 GHG emissions reduction target (including land-use, land-use change and forestry – LULUCF – emissions) of 29% below business-as-usual (BAU) and a conditional 41% reduction below BAU by 2030 (with sufficient international support). We rate the INDC “inadequate”. Under different assumptions as to what fraction of effort is devoted to deforestation, the INDC could be rated either “medium” or “inadequate”. Indonesia would need to quantitatively clarify how it intends to reduce emissions across the different sectors to permit a revision of our “inadequate” assessment.

Indonesia's INDC targets include deforestation emissions due to deforestation and peatland destruction, which at present account for the largest source of the country's emissions, an average of 60% of total emissions over the last ten years (based on national data). The effect of the INDC on future deforestation emissions is not made clear in Indonesia's submission.

With currently implemented policies Indonesia will likely overachieve its 2020 pledge (26% below BAU). However, Indonesia is working on the construction of new coal-fired power plants to meet rapidly increasing electricity demand, a development which is likely to bind the country to this carbon-intensive technology for many decades.

CAT EVALUATION OF INDONESIA'S INTENDED NATIONALLY DETERMINED CONTRIBUTIONS (INDC)

