

BROWN TO GREEN:

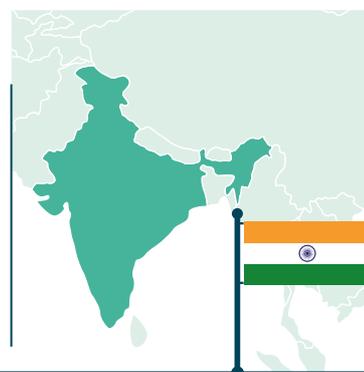
THE G20 TRANSITION TO A LOW-CARBON ECONOMY | 2018

INDIA

GREENHOUSE GAS (GHG) EMISSIONS
(INCL. FORESTRY) PER CAPITA
(tCO₂e/capita)



Data from 2015 | Source: PRIMAP 2018



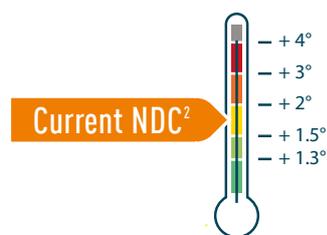
The gap:

Is India on track to stay below the Paris Agreement temperature limit?

Based on implemented policies, India's **GHG emissions** are expected to increase to a level of 4,469 to 4,570 MtCO₂e by 2030 (excl. forestry). This emission pathway is not compatible with a 2°C scenario.¹

India's **NDC** is already compatible with a global scenario to limit warming to below 2°C, but not to the 1.5°C Paris Agreement limit.²

India's sectoral **policies** are still falling short of being consistent with the Paris Agreement, but the country's ambitious policy on renewable electricity is a promising sign.³



Source: CAT 2018

Recent developments:

What has happened since the Paris conference?

↓ India has rowed back from commitments to sell 100% EVs by 2030, and now targets a more moderate pace of development. Nonetheless, new EV support policies are being considered.

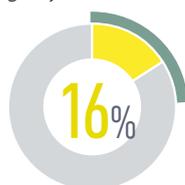
↑ India's National Electricity Plan envisages reaching 47% capacity from non-fossil sources by 2027, reaching the NDC target ahead of schedule.

↑ India has released its draft India Cooling Action Plan, which aims to cut cooling demand by 20% to 25% by 2037, thus curbing a source of huge growth in electricity demand and high GWP refrigerants.

Brown and green performance:

Where does India lead or lag compared to G20 countries?

SHARE OF RENEWABLES IN
POWER GENERATION
(incl. large hydro)



G20 average: 24%

Data from 2017 | Source: Enerdata 2018

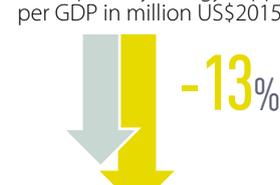
2010-2015 TREND IN INDUSTRY
EMISSIONS INTENSITY
(tCO₂e/thousand US\$2015 sectoral
GDP (PPP))



G20 average: -8.2%

Source: PRIMAP 2018

2012-2017 TREND IN ENERGY
INTENSITY OF THE ECONOMY
(Total primary energy supply in TJ
per GDP in million US\$2015 (PPP))

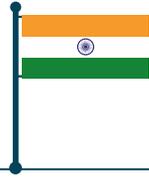


G20 average: -11%

Source: Enerdata 2018

This country profile is part of the **Brown to Green 2018** report. The full report and other G20 country profiles can be downloaded at: <http://www.climate-transparency.org/g20-climate-performance/g20report2018>

**BACKGROUND INDICATORS:
INDIA**

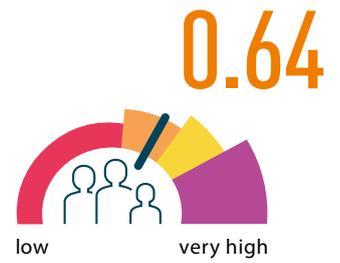


GDP PER CAPITA⁴
(PPP US\$ const. 2015, international)



Source: World Bank 2017

HUMAN DEVELOPMENT INDEX⁵



Data from 2017 | Source: UNDP 2018

INDIA'S EXPOSURE TO CLIMATE IMPACTS⁶

This indicator shows the extent to which human society and its supporting sectors are affected by the future changing climate conditions based on an approximately 2°C scenario. This sectoral exposure will be even higher given that the efforts depicted in current NDCs will lead to an approximately 3°C scenario.



FOOD



Projected climate impacts on cereal yields



Projected increase of food demand due to population growth



WATER



Projected climate impacts on annual run-off



Projected climate impacts on annual groundwater recharge



HEALTH



Projected climate impacts on a spread of malnutrition and diarrhoeal diseases



Projected climate impacts on spread of vector-borne diseases



ECOSYSTEM SERVICE



Projected climate impacts on biomes occupying the countries



Projected climate impacts on marine biodiversity



HUMAN HABITAT



Projected climate impacts on frequency of high temperature periods



Projected climate impacts on frequency and severity of floods



INFRASTRUCTURE



Projected climate impacts on hydropower generation capacity



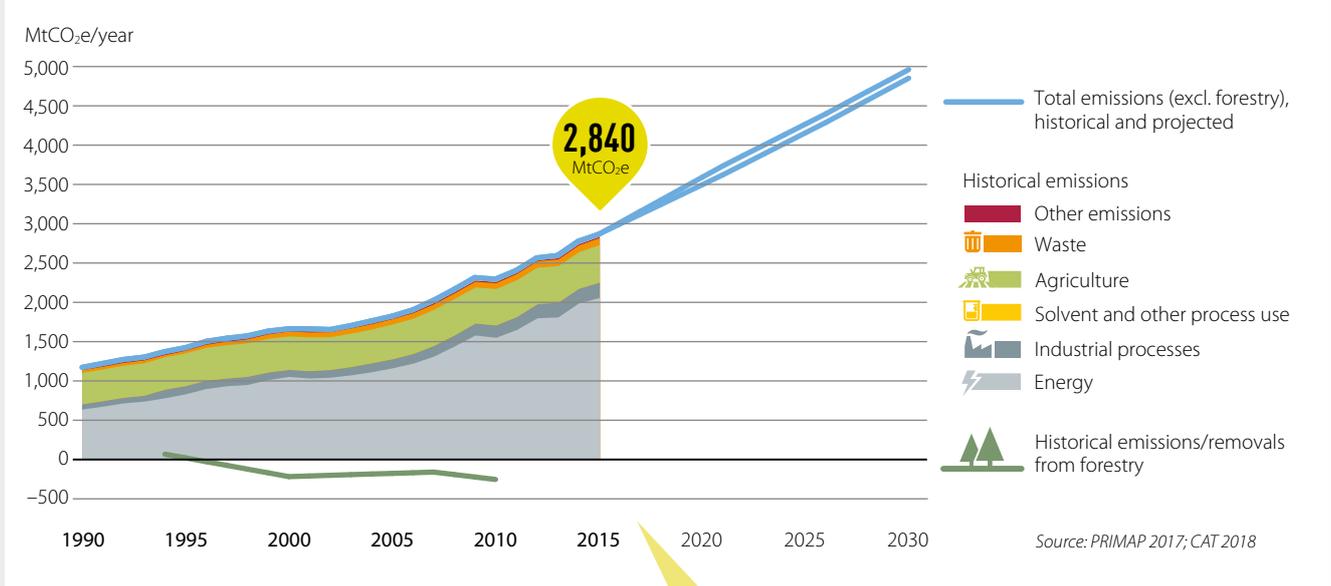
Proportion of coastline impacted by sea level rise



Own composition based on ND-GAIN 2017 (based on data for 2016)

GREENHOUSE GAS (GHG) EMISSIONS

TOTAL GHG EMISSIONS ACROSS SECTORS⁷

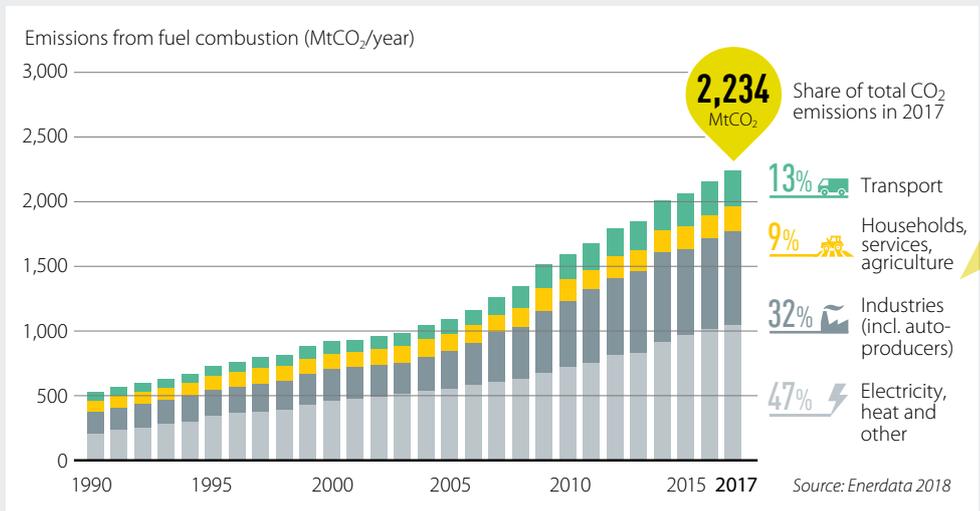


CCPI PERFORMANCE RATING OF GHG EMISSIONS PER CAPITA⁸



India's GHG emissions more than doubled between 1990 and 2015 (+147%), and that trend is expected to continue. However, at a per capita level, India's GHG emissions remain well below the G20 average.

ENERGY-RELATED CO₂ EMISSIONS⁹

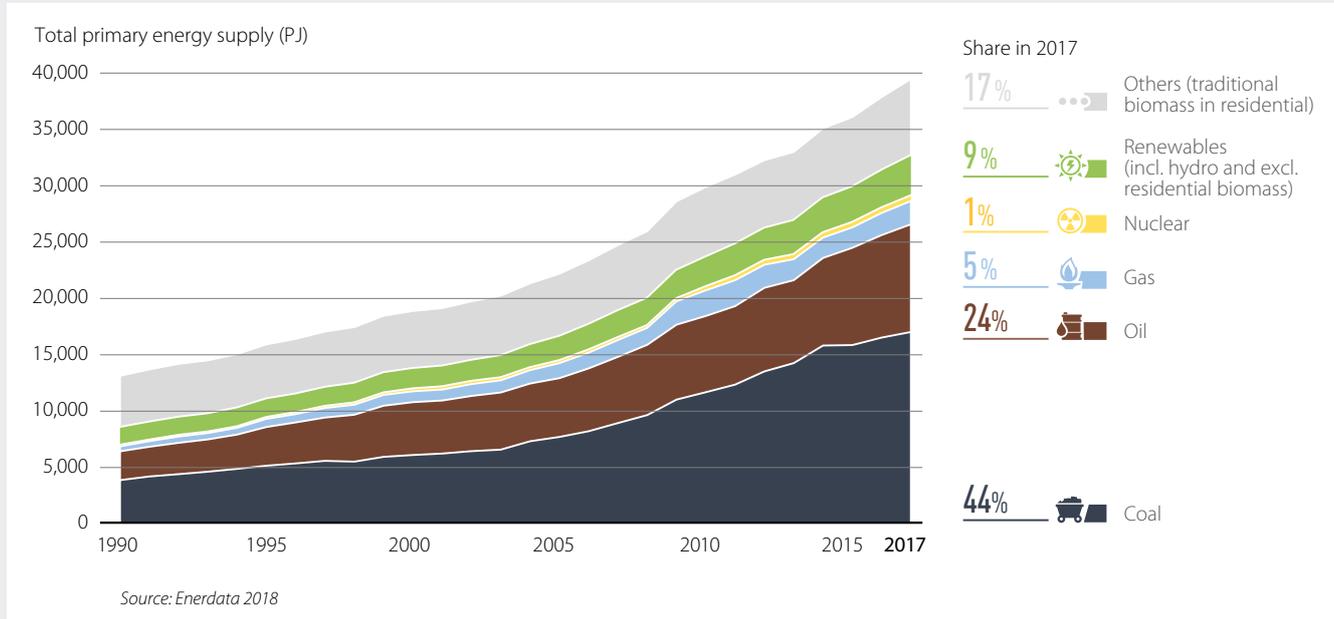


The largest driver for overall GHG emissions are CO₂ emissions from energy. In India, these emissions have more than tripled since 1990 mainly driven by power generation and industries.

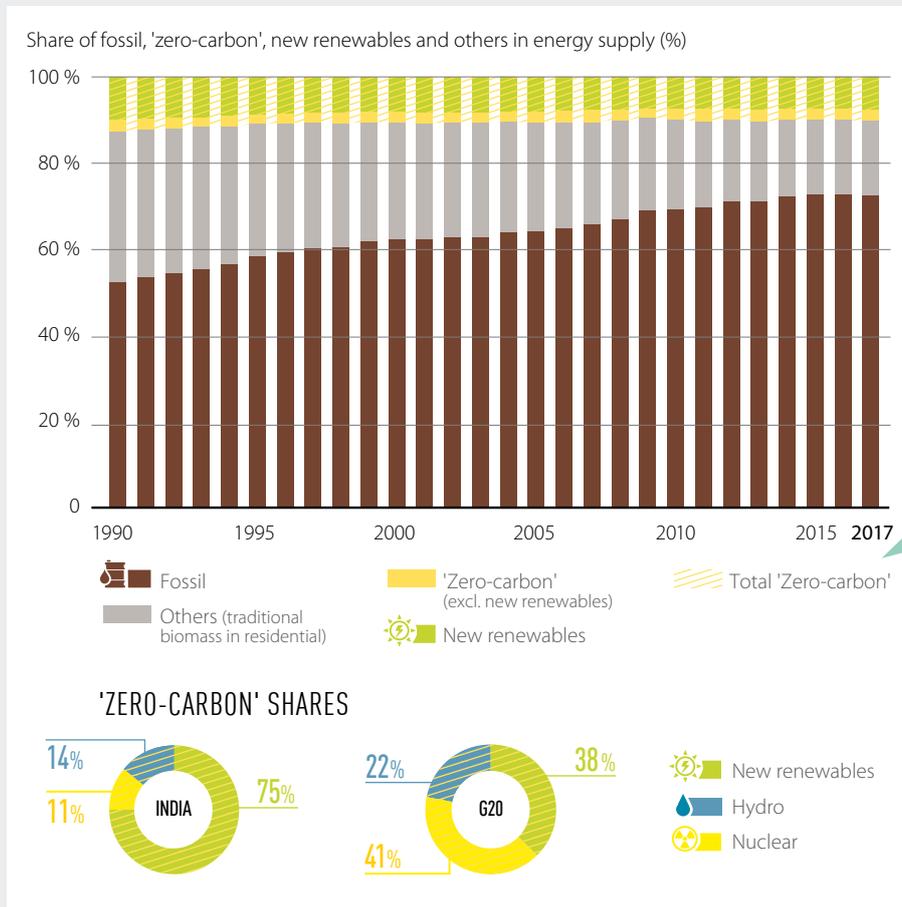
DECARBONISATION

INDIA

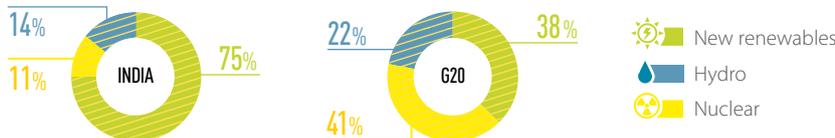
ENERGY MIX¹⁰



SHARE OF FOSSIL FUELS AND 'ZERO-CARBON' FUELS IN ENERGY SUPPLY¹¹



'ZERO-CARBON' SHARES



Source: Enerdata 2018

PERFORMANCE RATING OF SHARE OF FOSSIL FUELS¹²



Source: own evaluation

Zero-carbon fuels include nuclear, hydropower, new renewables. The share of fossil fuels in India's energy mix has increased slightly (2012–2017), reflecting a trend away from traditional biomass.

PERFORMANCE RATING OF SHARE OF ZERO-CARBON TECHNOLOGY¹²

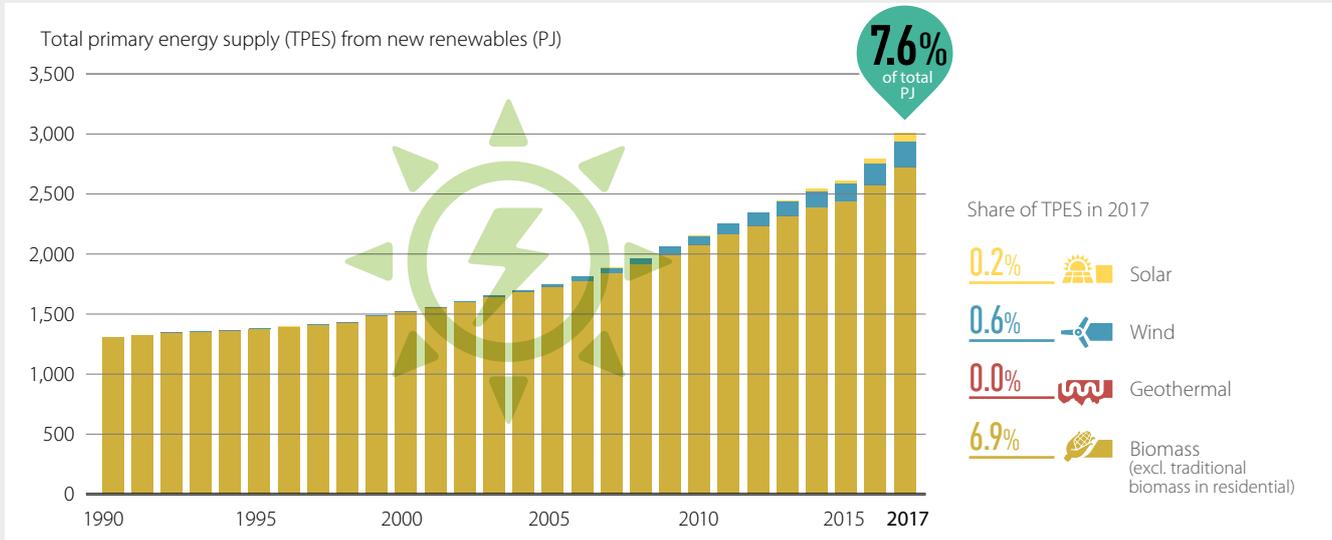


Source: own evaluation

DECARBONISATION

INDIA

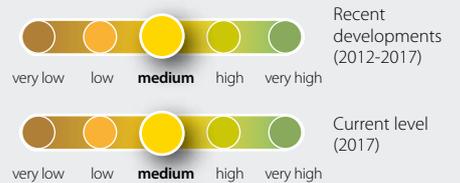
NEW RENEWABLES¹³



Source: Enerdata 2018

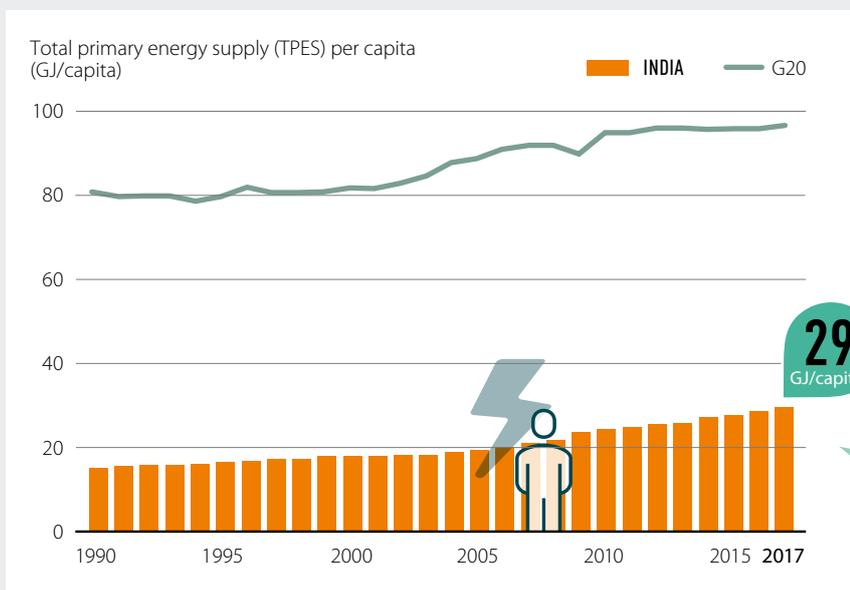
“New renewables” excludes unsustainable renewable sources such as large hydropower. The total amount of energy from new renewable sources has increased by 28% (2012–2017), while the share in total energy supply has remained at around 8% (G20 average is only 5%).

PERFORMANCE RATING OF NEW RENEWABLES¹²



Source: own evaluation

ENERGY USE PER CAPITA¹⁴



Source: Enerdata 2018

PERFORMANCE RATING OF ENERGY USE PER CAPITA¹²

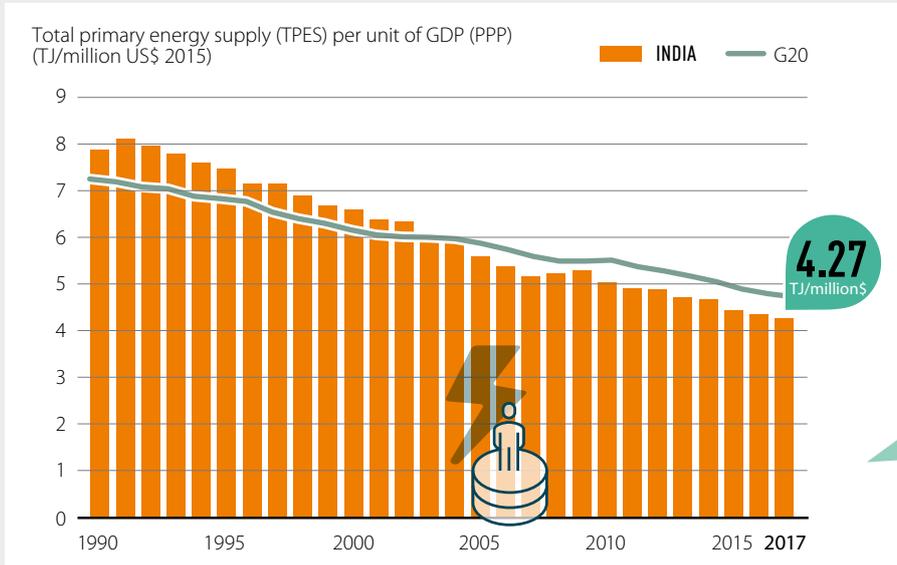


Source: own evaluation

India has one of the G20's highest growth rates in energy use per capita (+15%, 2012–2017) but still the lowest level in the G20.

DECARBONISATION

ENERGY INTENSITY OF THE ECONOMY¹⁵



This indicator quantifies how much energy is used for each unit of GDP. India's energy intensity has decreased by 13% (2012–2017) and is now below G20 average.

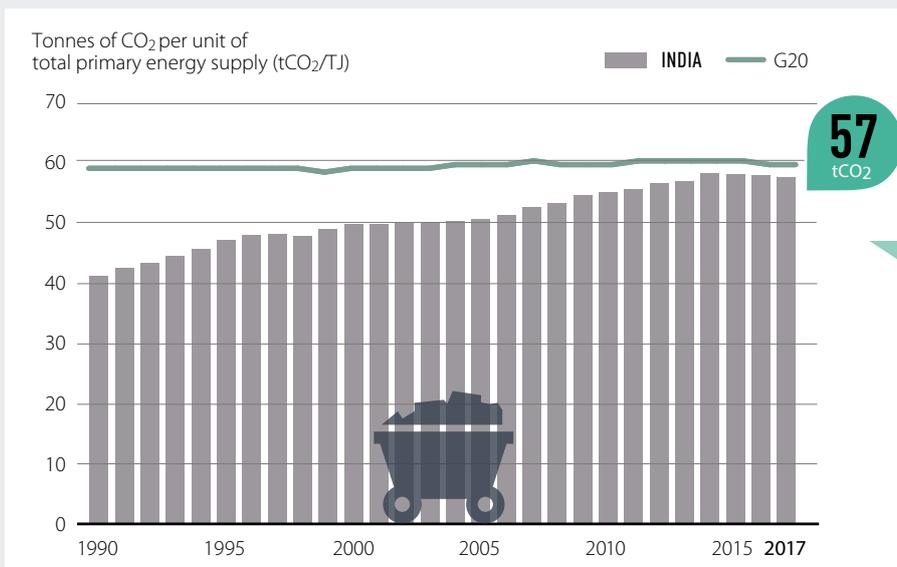
Source: Enerdata 2018

PERFORMANCE RATING OF ENERGY INTENSITY¹²



Source: own evaluation

CARBON INTENSITY OF THE ENERGY SECTOR¹⁶



The carbon intensity of India's energy sector has been increasing since 1990, reflecting a trend away from traditional biomass towards fossil fuels. In the last five years, India's carbon intensity has almost reached and remains close to the G20 average level.

Source: Enerdata 2018

PERFORMANCE RATING OF CARBON INTENSITY¹²



Source: own evaluation

DECARBONISATION

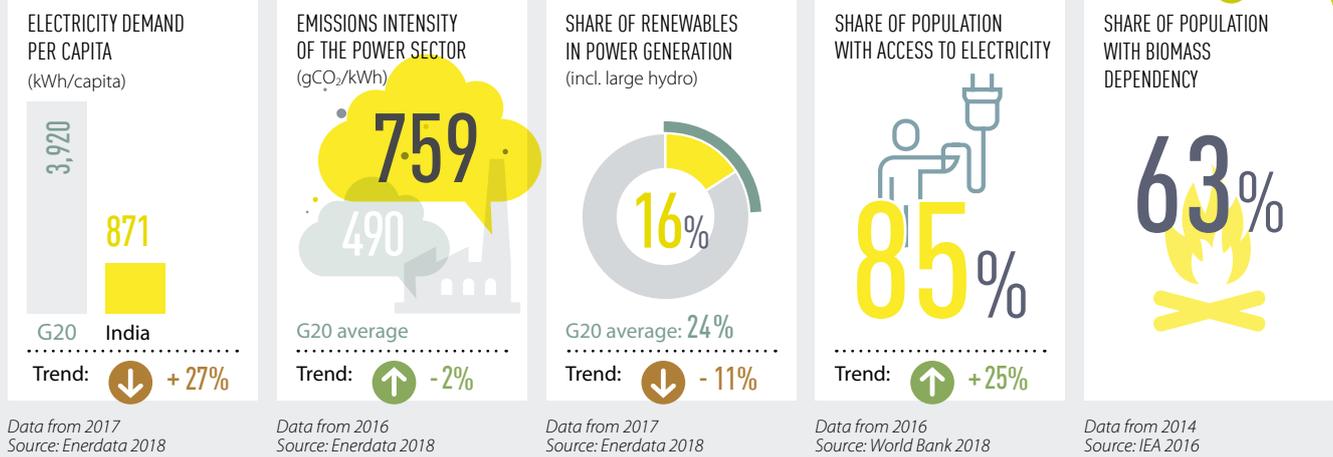
INDIA

SECTOR-SPECIFIC INDICATORS

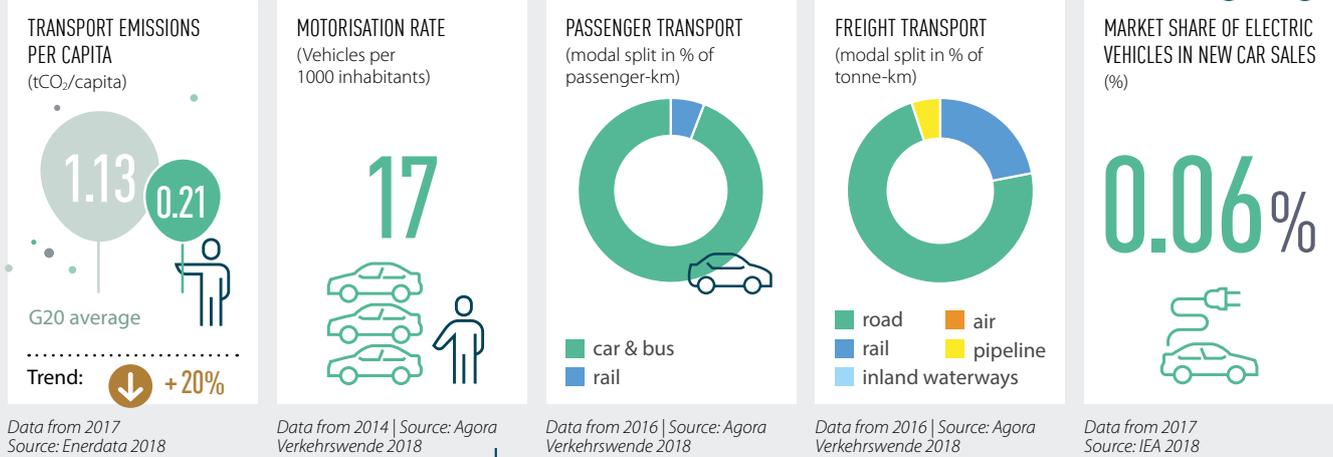
Legend for trend: negative positive

The trend number shows developments over the past five years, where data is available

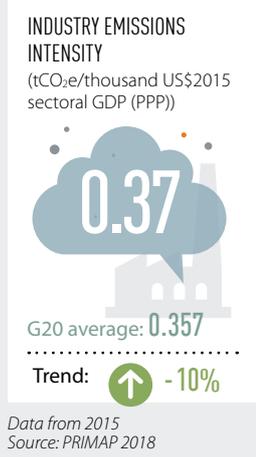
POWER SECTOR



TRANSPORT SECTOR



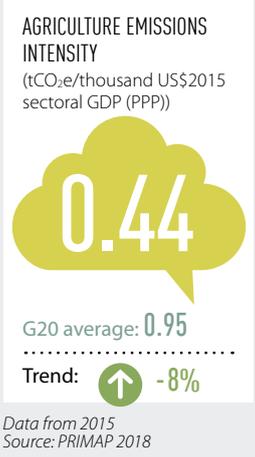
INDUSTRY SECTOR



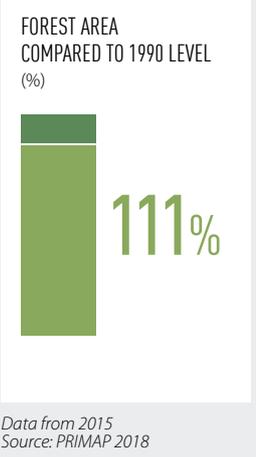
BUILDING SECTOR



AGRICULTURE SECTOR



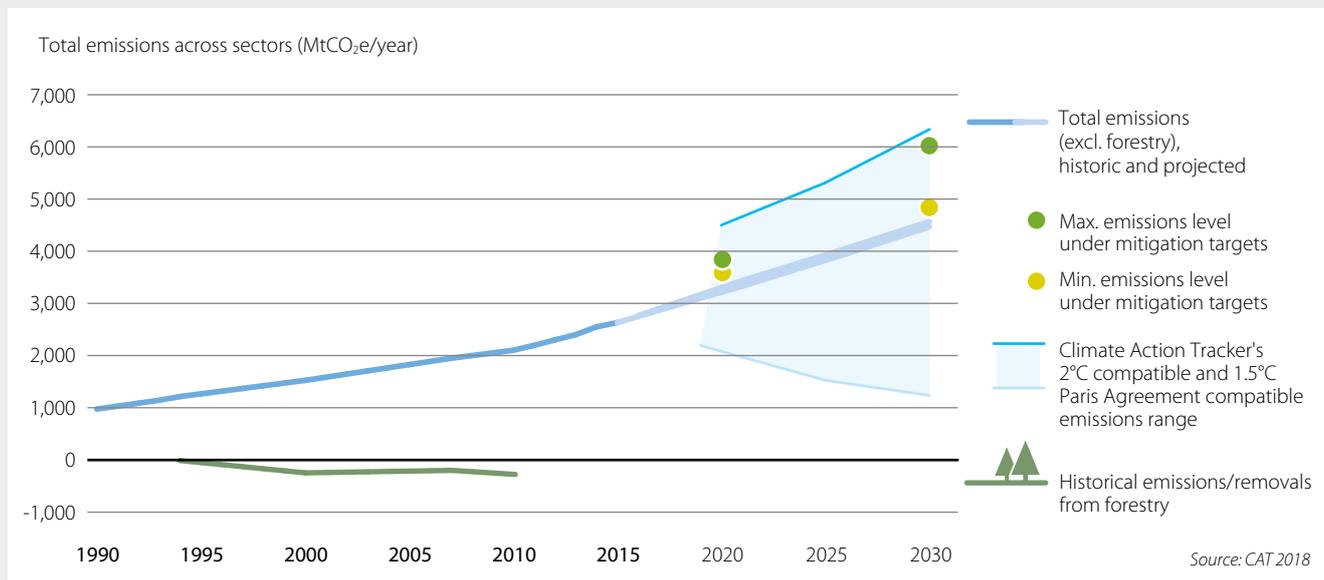
FOREST SECTOR



CLIMATE POLICY

INDIA

COMPATIBILITY OF CLIMATE TARGETS WITH THE PARIS AGREEMENT²



The CAT rates India's NDC "2°C compatible". India's recently adopted National Electricity Plan puts the country on track to overachieve climate targets under current policies. It could even achieve part of its NDC goals – a 40% non-fossil-based power capacity – well before the 2030 target year. India could become "1.5°C compatible", inter alia, if it continues to abandon plans to build new coal-fired power plants. In 2017, renewable energy investments topped fossil fuel-related investments in the electricity sector.

CLIMATE ACTION TRACKER (CAT) EVALUATION OF NDC²



NATIONALLY DETERMINED CONTRIBUTION (NDC)

MITIGATION

Targets	<p>Overall targets To reduce the emissions intensity of its GDP by 33% to 35% by 2030 from 2005 level</p> <p>Coverage 100% of emissions covered (all sectors and gases)</p> <p>Sectoral targets</p> <ul style="list-style-type: none"> • Energy: To achieve about 40% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030 with the help of transfer of technology and low-cost international finance including from Green Climate Fund (GCF) • Forestry: To create an additional carbon sink of 2.5 billion to 3 billion tCO₂e through additional forest and tree cover by 2030
Actions	Actions specified (sectors: energy, industry, waste, transport, forestry)

ADAPTATION

Targets	Not mentioned
Actions	Actions specified (sectors: agriculture, water, health, biodiversity/ecosystems)

FINANCE

Conditionality	A detailed and full-scale assessment of international climate finance needs will be finalised at a later stage and would depend on available domestic sources
Investment needs	<ul style="list-style-type: none"> • Mitigation investment needs: US\$834 billion • Adaptation investment needs: US\$205 billion (plus additional investments for strengthening resilience and disaster management) • Total preliminary estimates of investment needs: US\$2.5 trillion
Actions	National actions to align financial flows mentioned but not further specified (fiscal policy levers and public spending)
International market mechanisms	Not mentioned

Source: own compilation based on UNFCCC 2018



CLIMATE POLICY

POLICY EVALUATION¹⁷

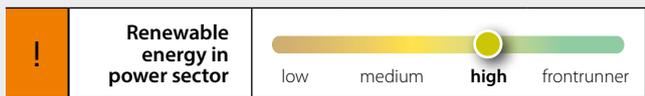
The ratings evaluate a selection of policies that are essential pre-conditions for the longer-term transformation required to meet the 1.5°C limit. They do not represent a complete picture of what is necessary.

Legend:
low No action
medium Some action
high Significant action and a long-term vision
frontrunner Significant action, and a long-term vision that is compatible with 1.5°C
! most important measures based on share of emissions and political relevance



India is in the process of developing its long-term emissions development strategy. It does not yet have a 2050 emission target.

POWER

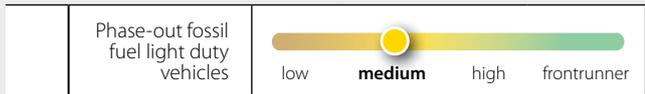


India's clean energy programme has doubled renewable capacity to between 2014 and 2017. The country aims to have 175 GW of installed renewables capacity by 2022. The National Electricity Plan (NEP) expects the installed capacity of renewables to reach 265 GW by 2027, which would place India ahead of its NDC target for 2030.



India is heavily dependent on coal power and, according to the 2017 NEP, net additions of 45 GW will be added by 2027, although it notes that these plant additions will be needed for peaking power rather than baseload.

TRANSPORT



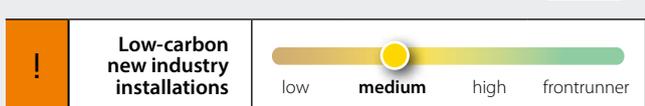
The government seeks to promote the deployment of electric vehicles (EVs). However, it has recently rowed back from the target of 100% EV sales by 2030. In 2018, the government launched a new National Electric Mobility Programme focusing on charging infrastructure and government procurement of EVs.

BUILDINGS



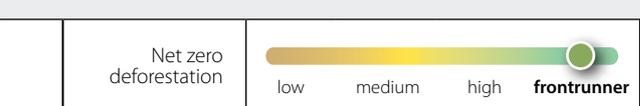
India's floor area is expected to increase by 400% by 2050 and energy demand from buildings by 800%. In 2017, the government revised its Energy Conservation Building Code for new commercial buildings aiming to reduce energy use by 50% by 2030, but a code for residential buildings is still missing. The government does not pursue a near-zero energy building strategy yet.

INDUSTRY



India's Perform, Achieve and Trade scheme aims to reduce energy consumption in energy-intensive industries with a white certificate scheme.

FORESTS



The government is currently revising its forest policy to align it with India's NDC. The draft policy aims to have at least one-third of the total land area under forest and tree cover. The current level is 24.4%, so India is seeking to increase its total forest cover.

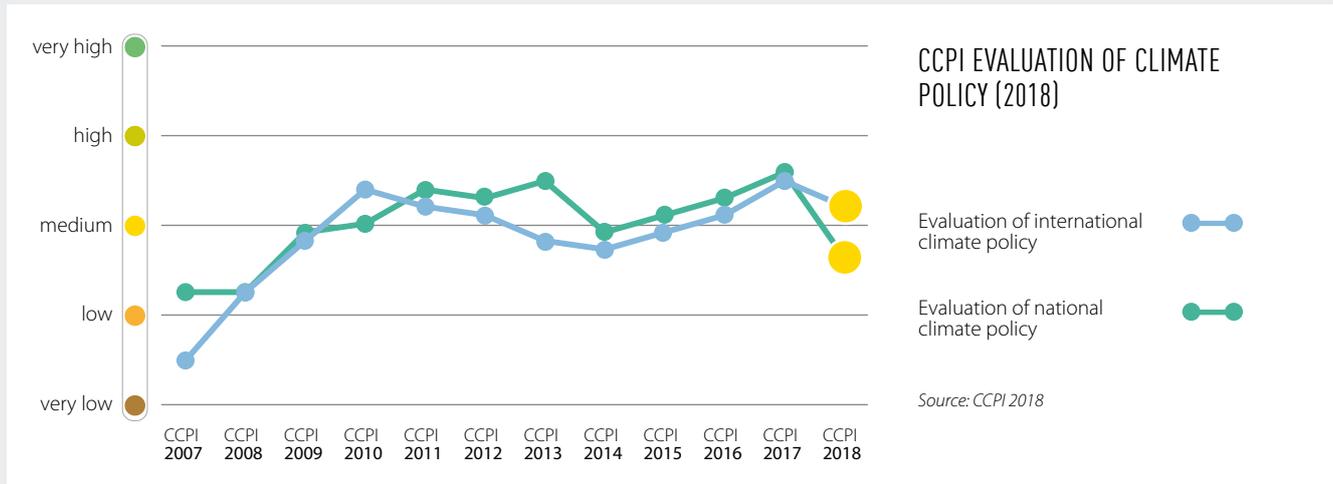
Source: own evaluation

CLIMATE POLICY

INDIA

CCPI EXPERTS' POLICY EVALUATION¹⁸

Experts rank India as medium on national climate policy, noting that it has deployed a significant amount of renewable energies. But they say targets for planned sector expansion are insufficient. They say that India lacks definite policies to reduce fossil fuels to curb emissions. India's international climate policy performance is rated high, due to its presence on the international stage.



JUST TRANSITION¹⁹

The concept of “just transition” is not prevalent in India’s climate policy discourse. India is undergoing massive transitions: urbanisation, industrialisation, formalisation and labour force growth. India needs to create about 32 million jobs per year. The success of these macro-scale transitions is policy-makers’ main concern. Coal is a significant part of the economies of some poorer states (Jharkhand, Orissa and Chhattisgarh). According to official employment figures, 355,000 workers were employed in

coal mines, out of a workforce of about 450 million. Coal mine employment fell about 1.8% per year, while productivity grew about 6% per year (it remains half the global average). Coal value chain employment is estimated to be just over 1 million jobs. “Just transition” is dependent on the success of the current macro-transitions.



FINANCING THE TRANSITION

FINANCIAL POLICIES AND REGULATIONS

Through policy and regulation governments can overcome challenges to mobilising green finance, including: real and perceived risks, insufficient returns on investment, capacity and information gaps.

APPROACHES TO IMPLEMENTING THE RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)²⁰

This indicator establishes the degree of government engagement with the recommendations of the G20 Financial Stability Board’s Task Force on Climate-Related Financial Disclosure.

No formal engagement with TCFD	Political and regulatory engagement	Formal engagement with private sector	Publication of guidance and action plans	Encoding into law
■	□	□	□	□

Source: CISL 2018

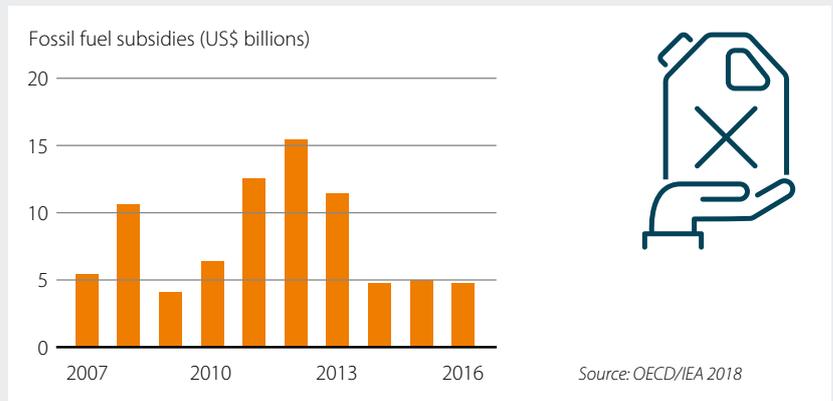
No formal engagement with TCFD-compliant initiatives was found in India. More broadly, the Securities and Exchange Board requires business responsibility reports for the top 500 listed entities since 2016 (top 100 in 2012). The Reserve Bank of India is internally formulating a roadmap for green banking in India by looking into various aspects of green finance.

FISCAL POLICY LEVERS

Fiscal policy levers raise public revenues and direct public resources. Critically, they can shift investment decisions and consumer behaviour towards low-carbon, climate-resilient activities by reflecting externalities in prices.

FOSSIL FUEL SUBSIDIES

In 2016, India’s fossil fuel subsidies were US\$4.8bn. From 2007 to 2016, subsidies were lower (US\$0.001) than the G20 average (US\$0.003) per unit of GDP, fluctuating widely (US\$4.1bn to US\$15.5bn). Subsidies primarily target consumption (92%), through direct budget support and tax exemptions. The largest subsidy compensates for under-recoveries incurred by downstream oil companies as a result of fixed prices on kerosene and liquid petroleum gas (US\$2.8bn in 2016).



CARBON REVENUES

India does not have a national carbon tax or emissions trading scheme, nor are any schemes planned. Despite this, 64% of carbon emissions from energy usage are subject to other taxes. In 2017, India phased out the earmarking of revenues from the Clean Environment Cess (taxing coal) for environmental purposes, subsumed under the introduction of the centralised Goods and Services Tax.



FINANCING THE TRANSITION

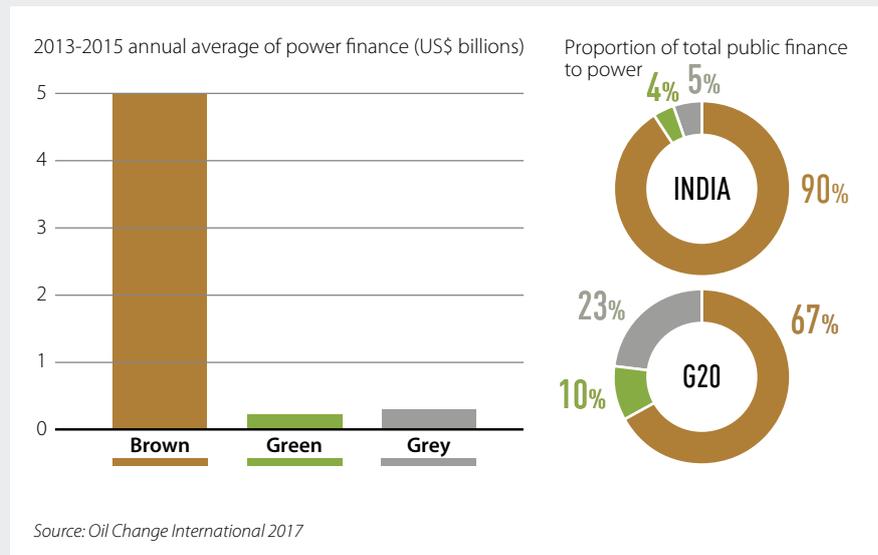
PUBLIC FINANCE

Governments steer investments through their public finance institutions including via development banks, both at home and overseas, and green investment banks. Developed G20 countries also have an obligation to provide finance to developing countries and public sources are a key aspect of these obligations under the UNFCCC.

NATIONAL AND INTERNATIONAL PUBLIC FINANCE IN THE POWER SECTOR²¹

From 2013 to 2015, India's public finance institutions spent an annual average of US\$5bn brown, US\$0.2bn green and US\$0.3bn grey financing in the power sector, domestically and internationally. The largest transaction provided a loan (US\$538.3m) to the Adani Rajasthan supercritical coal power plant. This data is likely to be non-comprehensive due to a lack of available data.

- coal, oil and gas projects (and associated infrastructure) **brown**
- large-scale hydropower, biofuels, biomass, nuclear, incineration, transmission, distribution, storage, energy efficiency, other general electricity support **grey**
- renewable energy projects (excluding grey financing) **green**



PROVISION OF INTERNATIONAL PUBLIC SUPPORT

India is not listed in Annex II of the UNFCCC and is therefore not formally obliged to provide climate finance. While India may channel international public finance towards climate change via multilateral and other development banks, this has not been included in this report.

OBLIGATION TO PROVIDE CLIMATE FINANCE UNDER UNFCCC



CONTRIBUTIONS THROUGH THE MAJOR MULTILATERAL CLIMATE FUNDS²²

Note: See Technical Note for multilateral climate funds included and method to attribute amounts to countries

Source: Climate Funds Update 2017

Annual average contribution (mn US\$, 2015-2016)	Theme of support		
	Adaptation	Mitigation	Cross-cutting
0.74	0%	100%	0%

BILATERAL CLIMATE FINANCE CONTRIBUTIONS²³

Source: Country reporting to UNFCCC

Annual average contribution (mn US\$, 2015-2016)	Theme of support			
	Mitigation	Adaptation	Cross-cutting	Other
n.a.	n.a.	n.a.	n.a.	n.a.



ANNEX



For more detail on sources and methodologies, please refer to the Technical Note at:

https://www.climate-transparency.org/wp-content/uploads/2018/11/Technical-Note_data-sources-and-methodology.pdf

- 1) The 2030 projections of the future development of greenhouse gas (GHG) emissions under current policies are based on the Climate Action Tracker (CAT) estimates.
- 2) The CAT is an independent scientific analysis that tracks progress towards the globally agreed aim of holding warming to well below 2°C, and pursuing efforts to limit warming to 1.5°C. The CAT “Effort Sharing” assessment methodology applies state-of-the-art scientific literature on how to compare the fairness of government efforts and (Intended) Nationally Determined Contribution (I) NDC proposals against the level and timing of emission reductions consistent with the Paris Agreement. The assessment of the temperature implications of a country’s NDC is based on the assumption that all other governments would follow a similar level of ambition.
- 3) This assessment is based on the policy evaluation on page 9 of this Country Profile.
- 4) Gross Domestic Product (GDP) per capita is calculated by dividing GDP with mid-year population figures. GDP is the value of all final goods and services produced within a country in a given year. Here GDP figures at purchasing power parity (PPP) are used. Data for 2017.
- 5) The Human Development Index (HDI) is a composite index published by the United Nations Development Programme (UNDP). It is a summary measure of average achievement in key dimensions of human development. A country scores higher when the lifespan is higher, the education level is higher, and GDP per capita is higher.
- 6) The ND-GAIN index summarises a country’s vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. This report looks only at the exposure indicators as part of the vulnerability component of the ND-GAIN index for six sectors. It displays the exposure scores provided by the ND-GAIN on a scale from low (score: 0) to high (score: 1).
- 7) The indicator covers all Kyoto gases showing historic emissions in each of the IPCC source categories (energy, industrial processes, agriculture, etc.). Emissions projections (excl. forestry) under a current policy scenario until 2030 are taken from the Climate Action Tracker and scaled to the historical emissions from PRIMAP (see Brown to Green Report 2018 Technical Note).
- 8) The ratings on GHG emissions are taken from the Climate Change Performance Index (CCPI) 2018. The rating of “current level compared to a well below 2°C pathway” is based on a global scenario of GHG neutrality in the second half of the century and a common but differentiated convergence approach.
- 9) CO₂ emissions cover only the emissions from fossil fuels combustion (coal, oil and gas) by sector. They are calculated according to the UNFCCC methodology (in line with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories).
- 10) Total primary energy supply data displayed in this Country Profile does not include non-energy use values. Solid fuel biomass in residential use has negative environmental and social impacts and is shown in the category “other”.
- 11) Zero-carbon fuels include nuclear, hydropower and new renewables (non-residential biomass, geothermal, wind, solar).
- 12) Climate Transparency ratings assess the relative performance across the G20. A high scoring reflects a good effort from a climate protection perspective but is not necessarily 1.5°C compatible.
- 13) New renewables include non-residential biomass, geothermal, wind and solar energy. Hydropower and solid fuel biomass in residential use are excluded due to their negative environmental and social impacts.
- 14) Total primary energy supply (TPES) per capita displays the historical, current and projected energy supply in relation to a country’s population. Alongside the intensity indicators (TPES/GDP and CO₂/TPES), TPES per capita gives an indication on the energy efficiency of a country’s economy. In line with a well-below 2°C limit, TPES per capita should not grow above current global average levels. This means that developing countries are still allowed to expand their energy use to the current global average, while developed countries have to simultaneously reduce it to that same number.
- 15) TPES per GDP describes the energy intensity of a country’s economy. This indicator illustrates the efficiency of energy usage by calculating the energy needed to produce one unit of GDP. Here GDP figures at PPP are used. A decrease in this indicator can mean an increase in efficiency but also reflects structural economic changes.
- 16) The carbon intensity of a country’s energy sector describes the CO₂ emissions per unit of total primary energy supply and gives an indication of the share of fossil fuels in the energy supply.



ANNEX (continued)



- 17) The selection of policies rated and the assessment of 1.5°C compatibility are informed by the Paris Agreement and the Climate Action Tracker (2016): "The ten most important short-term steps to limit warming to 1.5°C". The table below displays the criteria used to assess a country's policy performance. See the Brown to Green Report 2018 Technical Note for the sources used for this assessment.
- 18) The CCPI evaluates a country's performance in national climate policy, as well as international climate diplomacy through feedback from national experts from non-governmental organisations to a standardised questionnaire.
- 19) See the Brown to Green 2018 Technical Note for the sources used for this assessment.
- 20) The University of Cambridge Institute for Sustainability Leadership (CISL) in early 2018 reviewed the progress made by the national regulatory agencies of G20 members in making the Task Force on Climate-related Financial Disclosures (TCFD) recommendations relevant to their national contexts. See the Brown to Green Report 2018 Technical Note for more information on the assessment.
- 21) This data includes bilateral public finance institutions such as national development banks and other development finance institutions, overseas aid agencies, export credit agencies, as well as key multilateral development banks. The analysis omits most finance delivered through financial intermediaries and significant volumes of multilateral development bank (MDB) development policy finance (due to a lack of clarity on power finance volumes). Given a lack of transparency, other important multilateral institutions in which G20 governments participate are not covered. See the Brown to Green Report 2018 Technical Note for further details.
- 22) Finance delivered through multilateral climate funds comes from Climate Funds Update, a joint ODI/Heinrich Boell Foundation database that tracks spending through major multilateral climate funds. See the Brown to Green Report 2018 Technical Note for multilateral climate funds included and method to attribute approved amounts to countries.
- 23) Bilateral finance commitments are sourced from Biennial Party reporting to the UNFCCC. Financial instrument reporting is sourced from the OECD-DAC; refer to the Brown to Green Report 2018 Technical Note for more detail. Figures represent commitments of Official Development Assistance (ODA) funds to projects or programmes, as opposed to actual disbursements.

On endnote 17)	Criteria description			
	● Low	● Medium	● High	● Frontrunner
GHG emissions target for 2050 or beyond	No emissions reduction target for 2050 or beyond	Existing emissions reduction target for 2050 or beyond	Existing emissions reduction target for 2050 or beyond and clear interim steps	Emissions reduction target to bring GHG emissions to at least net zero by 2050
Long-term low emissions development strategy	No long-term low emissions strategy	Existing long-term low emissions strategy	Long-term low emissions strategy includes interim steps and/or sectoral targets	Long-term low emissions strategy towards full decarbonisation in the second half of the century; includes interim steps and/or sectoral targets, plus institutions and measures in place to implement and/or regularly review the strategy
Renewable energy in power sector	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 0-25	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 26-60	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 61-100	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), 61-100 plus 100% renewables in the power sector by 2050 in place
Coal phase-out	No consideration or policy in place for phasing out coal	Significant action to reduce coal use implemented or coal phase-out under consideration	Coal phase-out decided and under implementation	Coal phase-out date compatible with 1.5°C
Phase-out of fossil fuel light duty vehicles (LDVs)	No policy or emissions performance standards for LDVs in place	Energy/emissions performance standards or support for efficient LDVs	National target to phase out fossil fuel LDVs in place	Ban on new fossil-based LDVs by 2025/30
Near zero-energy new buildings	No policy or low emissions building codes and standards in place	Building codes, standards or fiscal/financial incentives for low emissions options in place	National strategy for near zero-energy buildings (at least for all new buildings)	National strategy for near zero-energy buildings by 2020/25 (at least for all new buildings)
Low-carbon new industry installations	No policy or support for energy efficiency in industrial production in place	Support for energy efficiency in industrial production (covering at least two of the country's sub-sectors (e.g. cement and steel production))	Target for new installations in emissions-intensive sectors to be low-carbon	Target for new installations in emissions-intensive sectors to be low-carbon after 2020, maximising efficiency
Net zero deforestation	No policy or incentive to reduce deforestation in place	Incentives to reduce deforestation or support schemes for afforestation / reforestation in place	National target for reaching zero deforestation	National target for reaching zero deforestation by 2020s or for increasing forest coverage

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Data Partners:



<http://www.climate-transparency.org/g20-climate-performance/g20report2018>

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