

CLIMATE TRANSPARENCY REPORT

COMPARING G20 CLIMATE ACTION AND RESPONSES TO THE COVID-19 CRISIS



2020

**Just Transition to a Low
Carbon Economy:
Accelerating
Indonesia's Recovery
and Green Economic
Growth**

3 December 2020

PARTNERS



HUMBOLDT-VIADRINA
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based on a decision of the German Bundestag

ABOUT CLIMATE TRANSPARENCY REPORT 2020

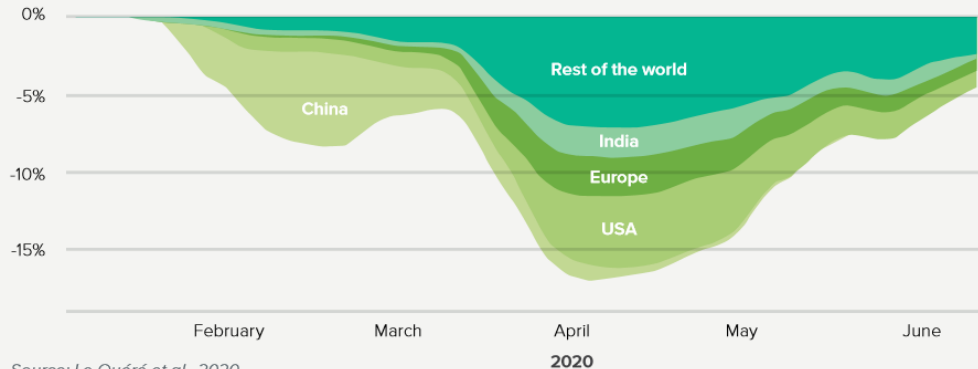
- 100 indicators of climate mitigation, finance and vulnerability
- emissions projections and data for the current year, analysis of COVID-19 responses, stimulus measures, and recommendations for a greener recovery
- summary infographics capturing the most important data, insights, and opportunities to increase G20 climate action



IMPACTS OF THE COVID-19 CRISIS ON CO₂ EMISSIONS

IN APRIL 2020 GLOBAL CO₂ EMISSIONS WERE 17% LOWER THAN IN 2019

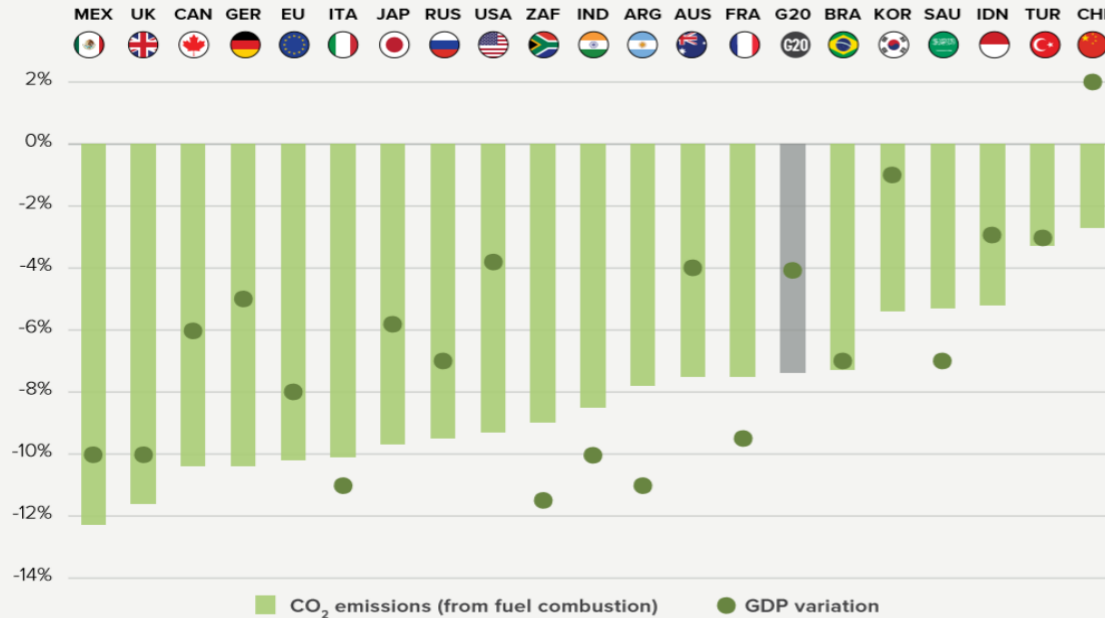
% Change in global daily fossil CO₂ emissions (2020)



Source: Le Quéré et al., 2020

- Global CO₂ emission reduction reached its peak in April 2020 (↓17%) lower than in 2019
- Energy-related CO₂ emissions are projected to drop by around 7.5%
- Concentrations of CO₂ in the atmosphere continued to rise in 2020 - reduction appears to be temporary

PROJECTED % CHANGE IN G20 GDP and ENERGY-RELATED CO2 EMISSIONS (2020)

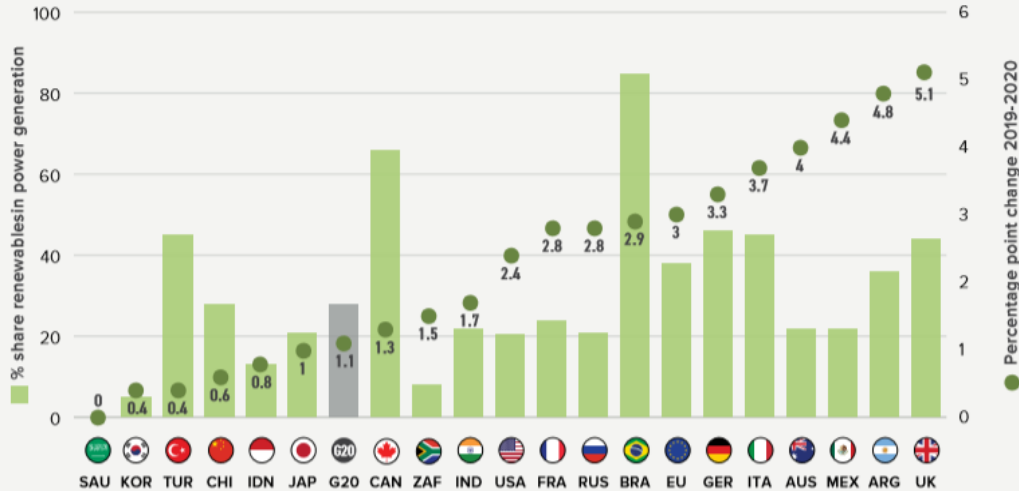


Source: Enerdata, 2020

IMPACTS OF THE COVID-19 CRISIS ON RENEWABLE ENERGY

RENEWABLES ARE PROJECTED TO INCREASE IN ALL G20 COUNTRIES IN 2020

Projected % share of renewables in power generation in the G20 and percentage point change (2020)



Source: Enerdata, 2020

- The share of renewables in power generation is projected to increase in all G20 countries in 2020- in 2019, 18 G20 countries saw increases
- Several factors may have caused this change: renewables being cheaper and a reduction of peak demand which is typically met with gas

G20 RECOVERY PACKAGES & IMPLICATIONS OF G20 RECOVERY RESPONSES

Other G20 Economies : increasing funding for clean energy and strengthening financial mechanisms for green bonds for sustainable infrastructure.

Indonesia

- Stimulus on social protection, small and medium enterprises, jobs, and state-owned enterprises.
- Subsidies to state-owned power company (PLN), oil and gas company, as well as Pertamina

Positive measures have also been announced: subsidies for biodiesel fuel consumption; tax reductions for various renewable energy projects; and a revoked plan for regulation relaxation towards land use and forestry.

5 PRINCIPLES FOR A GREEN RECOVERY

Invest in Sustainable Physical Infrastructure

Invest In Nature-based Solutions & the Environment

Invest In Education, Research & Development

Introduce Conditionality For Greener Bailouts

Reinforce Policy, Regulations, and Incentives for a Sustainable Future

CO-BENEFITS OF CLIMATE ACTION & A GREEN RECOVERY



**IMPROVE
PUBLIC HEALTH
& WELL-BEING**



**JOBS & LOCAL
ECONOMIC
VALUE
CREATION**



**BIODIVERSITY
& THE
ENVIRONMENT**



**FINANCIAL
SECURITY &
FISCAL BENEFITS**



**ENERGY
ACCESS
& SECURITY**

SUMMARY OF G20 CLIMATE ACTION

ADAPTATION	MITIGATION	FINANCE MOBILIZATION
<p>Adapt to the adverse effects of climate change and foster climate resilience and low-GHG development</p>	<p>Hold the increase to stay well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial level</p>	<p>Make finance flows consistent with a pathway towards low-GHG emissions and climate-resilient development.</p>
<p>Key Opportunities:</p> <ul style="list-style-type: none"> • Agricultural RnD & Food Security • Increase urban resilience • Increase disaster preparedness 	<p>Key Opportunities:</p> <ul style="list-style-type: none"> • Decarbonize power Generation by 2050 • Coal use needs to teak In 2020, then phase out rapidly • Retrofit existing buildings • Efficiency policies across industry 	<p>Key Opportunities:</p> <ol style="list-style-type: none"> 1. Greening the financial system 2. Phasing out fossil fuel by subsidies by 2025 3. Implementing high-coverage carbon pricing

2020 NDC UPDATES NEED TO ENHANCE MITIGATION TARGETS

	2015 NDC: Targets for 2030	CAT 'Fair-Share' Evaluation
Argentina	To not exceed a net emission of 483 MtCO ₂ e (unconditional) and 369 MtCO ₂ e (conditional) by 2030	Critically insufficient
Australia	To implement an economy-wide target to reduce GHG emissions by 26-28% below 2005 levels by 2030 (incl. LULUCF)	Insufficient
Brazil	To achieve a 37% GHG emissions reduction compared to 2005 by 2025 and a 43% reduction by 2030 (decarbonisation of the economy by the end of the century)	Insufficient
Canada	To reduce GHG emissions by 30% below 2005 levels by 2030	Insufficient
China	To achieve the peaking of CO ₂ emissions before 2030, and make best efforts to peak earlier To lower CO ₂ emissions per unit of GDP by 60-65% of the 2005 level by 2030 To increase non-fossil-fuel share of electricity to 20% by 2030 To increase forest stock volume by 4.5 billion cubic metres by 2030 compared to 2005	Highly insufficient
EU*	EU-wide target: At least 40% reduction in domestic GHG emissions by 2030 compared to 1990	Insufficient
France	EU-wide target: At least 40% reduction in domestic GHG emissions by 2030 compared to 1990	Insufficient
Germany	EU-wide target: At least 40% reduction in domestic GHG emissions by 2030 compared to 1990	Insufficient
India	To reduce the emissions intensity of GDP by 33-35% by 2030 from the 2005 level	2°C compatible
Indonesia	To unconditionally reduce 26% of its GHG emissions against the business-as-usual scenario by the year 2020 and 29% by the year 2030	Highly insufficient
Italy	EU-wide target: At least 40% reduction in domestic GHG emissions by 2030 compared to 1990	Insufficient
Japan	To achieve 26% emissions reductions by 2030 compared to 2013 (25.4% reduction compared to 2005)	Highly insufficient
Mexico	To unconditionally reduce 25% of GHG and short-lived climate pollutant emissions below business-as-usual by 2030. This commitment implies a reduction of 22% of GHG and a reduction of 5% of black carbon. Net emissions are to peak in 2026, and emissions intensity per unit of GDP will be reduced by around 40% from 2013 to 2030	Insufficient
Russia	To decrease emissions by 25-30% below 1990 levels (incl. land use) by 2030	Critically insufficient
Saudi Arabia	Annually abate up to 130 MtCO ₂ e by 2030 through contributions that have co-benefits that diversify the economy and mitigate greenhouse gas emissions.	Critically insufficient
South Africa	To achieve emissions by 2025 and 2030 in a range between 398-614 MtCO ₂ e (incl. land use), as defined in national policy	Highly insufficient
South Korea	To reduce its GHG emissions by 37% from the business-as-usual level (850.6 MtCO ₂ e) by 2030 across all economic sectors, equivalent to 20% below the 2010 level by 2030 (excl. LULUCF)	Highly insufficient
Turkey	To achieve a reduction in GHG emissions of up to 21% from business-as-usual level by 2030	Critically insufficient
UK	To reduce emissions by 57% below 1990 levels (national 2030 target not yet included in NDC)	Insufficient
USA	To achieve an economy-wide target of reducing GHG emissions by 26-28% below the 2005 level by 2025, and to make best efforts to reduce emissions by 28% (incl. land use)	Critically insufficient

Indonesia	To unconditionally reduce 26% of its GHG emissions against the business-as-usual scenario by the year 2020 and 29% by the year 2030	Highly insufficient
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The Climate Action Tracker (CAT) quantifies and evaluates climate change mitigation commitments and assess whether a government is doing its "fair share" compared with others towards the global effort to limit warming consistent with the Paris Agreement. Although there are no internationally agreed guidelines on what would constitute a fair level of contribution to the global effort, beyond the

INDONESIA - CURRENT PROGRESS OF CLIMATE ACTIONS

PER CAPITA GREENHOUSE GAS (GHG) EMISSIONS BELOW G20 AVERAGE

GHG emissions (Incl. land use) per capita (tCO₂e/capita)¹



Indonesia's greenhouse gas emissions per capita are below the G20 average.

Data for 2017; Sources: Gütschow et al., 2019; UN Department of Economic and Social Affairs; Population Division, 2019; Enerdata, 2020

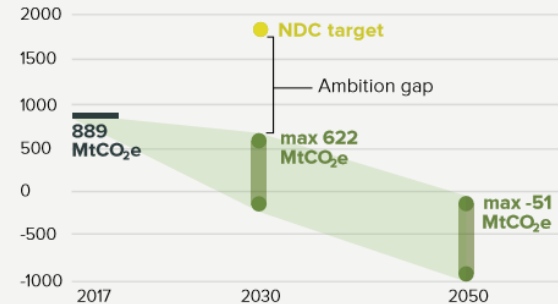
NOT ON TRACK FOR A 1.5°C WORLD



Indonesia needs to reduce its emissions to below 662 MtCO₂e by 2030 and to below 51 MtCO₂e by 2050 to be within its 'fair-share' range compatible with global 1.5°C IPCC scenarios. Indonesia's 2030 NDC would only limit its emissions to 1,817 MtCO₂e but it does not intend

to increase its emissions reduction target in its updated NDC. All figures exclude land use emissions.

Indonesia 1.5°C 'fair-share' pathway (MtCO₂e/year)^{1&2}

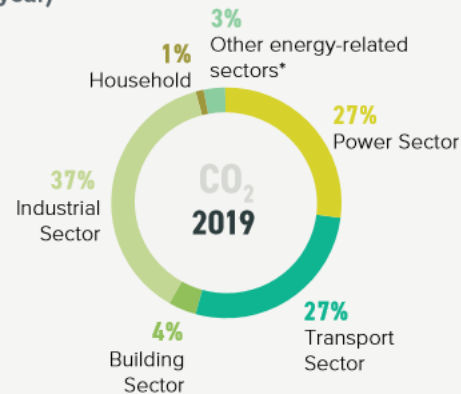
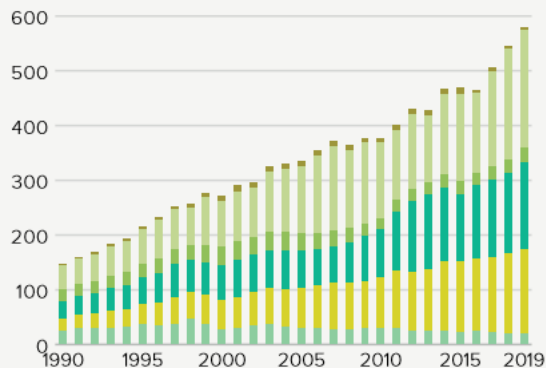


Source: Climate Action Tracker, 2020

INDONESIA – ENERGY RELATED EMISSIONS

Energy-related CO₂ emissions by sector

Annual CO₂ emissions from fuel combustion (MtCO₂/year)

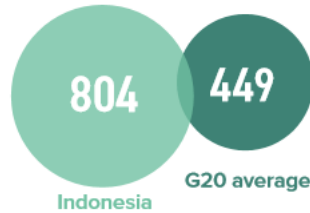


* 'Other energy-related sectors' covers energy-related CO₂ emissions from extracting and processing fossil fuels. Due to rounding, some graphs may sum to slightly above or below 100%.

EMISSIONS INTENSITY IN POWER & TRANSPORTATION

Emissions intensity of the power sector

Country vs G20 average (gCO₂/kWh)



Source: Enerdata 2020

Emissions intensity: 5-year trend (2014-2019)



Transport emissions per capita

excl. aviation (tCO₂/capita)



Data for 2018. Source: Enerdata, 2020

Transport emissions: 5-year trend (2013-2018)



RECENT DEVELOPMENT & RECOMMENDATIONS

RECENT DEVELOPMENTS



Energy and Mineral Resources Regulation No. 04/2020 simplifies renewable power generation regulation and the bankability of renewable projects to enhance the competitiveness of renewable electricity with fossil fuel power sources.



The Ministry of Energy and Mineral Resources is drafting a Presidential Regulation to regulate renewable energy prices and incentives, including a feed-in tariff for RE plants under 5 MW. This regulation is expected to be enacted in October 2020.



Government bailouts of coal-heavy electric utilities without conditions adds to the mounting support for coal, such as large subsidies. Indonesia is one of very few countries with coal power plant construction in 2020. The huge coal pipeline has over 30 GW of coal-fired power in development.

KEY OPPORTUNITIES FOR ENHANCING CLIMATE AMBITION



INCREASE RENEWABLE ENERGY TARGETS

Indonesia's energy generation mix was 88% fossil fuels in 2019. Indonesia should phase out coal by 2037 and increase its renewable energy targets to at least 50% by 2030, be 1.5°C-compatible and yield substantial employment and other sustainable development benefits.



DECARBONISE TRANSPORT

Transport emissions are projected to increase by 53% in 2030 above 2015 levels, and then almost double from 2030 levels to 2050. Electric vehicles, sustainable biofuels and more stringent fuel economy standards will drastically reduce greenhouse gas emissions from transport.



REGULATE CARBON TRADING

The current drafting of a Presidential Regulation on carbon trading offers an opportunity to support progress towards meeting an enhanced NDC target. The regulation has plans for carbon trading, carbon offset, and a commodity market.

Climate Transparency Report 2020 is **OFFICIALLY** launched!

