Comparing G20 Climate Action and responses to the COVID-19 Crisis

Catrina Godinho
Climate Transparency Report | Master
November 2020
OVERVIEW

IN A TIME OF UNCERTAINTY, THE G20 CAN SET A NEW COURSE TO A MORE SUSTAINABLE AND RESILIENT FUTURE

ABOUT CLIMATE TRANSPARENCY AND THIS REPORT

Introduction and key messages

PART 1: G20 RESPONSES TO THE COVID-19 CRISIS

Impacts of the COVID-19 Crisis on CO₂ Emissions
Comparing G20 Recovery Packages
5 Principles for the Co-benefits of a Green Recovery

PART 2: STOCKTAKE OF G20 CLIMATE ACTION

G20 NDC Updates
Adaptation
Mitigation
Finance
ABOUT CLIMATE TRANSPARENCY AND THIS REPORT

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

Our global partnership brings together experts from research organisations and NGOs in the majority of the G20 countries.

Our mission is to encourage ambitious climate action in the G20 countries: we inform policy makers and stimulate national debate.

The Climate Transparency Report is the world's most comprehensive annual review of G20 climate action: we provide concise and comparable information on mitigation, finance and vulnerability.

The Climate Transparency Report | 2020 consists of this summary report and an in-depth country profile for each of the G20 countries.
PART 1:
G20 RESPONSES TO THE COVID-19 CRISIS
“The post-Corona recovery packages can lead to a greener and more just world. Unfortunately, many do not live up to that aspiration. The Climate Transparency Report provides an excellent overview of the recovery programs with good examples as well as missed chances.”

Photo by Daniel Baud and the Sydney Opera House
IMPACTS OF THE COVID-19 CRISIS ON CO₂ EMISSIONS
CO₂ emissions projected to decrease by 7.5% in 2020.

SHARE OF RENEWABLES CONTINUE TO GROW IN 2020

THE SHARE OF RENEWABLES IN POWER GENERATION IS PROJECTED TO GROW IN ALL G20 MEMBERS

Several factors at play:
- renewables being cheaper,
- preferential access for renewables,
- and a reduction of peak demand, which is typically met with gas.

The gain in renewables is a signal of climate policies and economic factors at work in G20 countries.

Source: Enerdata, 2020
DEMAND FOR AVIATION FUEL DECREASED STEEPLY IN 2020

AVIATION FUEL DEMAND DECREASED MARCH TO JUNE 2020 IN ALL G20 MEMBERS

The pandemic has had an extreme impact on aviation demand.

Overall, airlines and airports have received at least USD 90bn in support.

G20 countries should take a long-term view and aid to the sector must be aligned with climate mitigation goals.
COMPARING G20 RECOVERY PACKAGES
In 16 out of the G20 members, stimulus spending in environmentally relevant sectors seems to be leaning towards reinvigorating rather than reforming emissions-intensive, environmentally-damaging industries.
G20 FISCAL SUPPORT IN THE ENERGY SECTOR

54% OF TOTAL G20 STIMULUS SUPPORT IN THE ENERGY SECTOR HAS BEEN DIRECTED TOWARDS FOSSIL FUELS

Energy Policy Tracker: G20 fiscal support to energy sector (mid-October 2020)

- 10 G20 countries are providing support to the domestic coal sector
- 10 countries are providing support to the gas sector
- 9 countries are providing support to the oil sector

However, 18 G20 countries (Saudi Arabia and Russia are the exceptions) are providing some support to green industries, focusing mainly on the expansion of renewable energy capacities and electric vehicles.
5 PRINCIPLES & CO-BENEFITS FOR A GREEN RECOVERY
5 PRINCIPLES OF A **GREEN RECOVERY**

A GREEN RECOVERY CAN ACCELERATE CLIMATE ACTION & BRING SUBSTANTIAL CO-BENEFITS

1. **INVEST IN A SUSTAINABLE PHYSICAL INFRASTRUCTURE**

2. **INVEST IN EDUCATION, RESEARCH AND DEVELOPMENT**

3. **REINFORCE POLICY, REGULATIONS, & INCENTIVES FOR A SUSTAINABLE FUTURE**

4. **INVEST IN NATURE-BASED SOLUTIONS & THE ENVIRONMENT**

5. **INTRODUCE CONDITIONALITY FOR GREENER BAILOUTS**
CO-BENEFITS OF CLIMATE ACTION FOR A GREEN RECOVERY

CO-BENEFITS THAT CAN BE EXPECTED OR DESIGNED INTO CLIMATE POLICIES AND RECOVERY RESPONSES

- Biodiversity & the Environment
- Financial Security & Fiscal Benefits
- Energy Access & Security
- Jobs & Local Economic Value Creation
- Improve Public Health & Well-Being
PART 2:
STOCKTAKE OF G20 CLIMATE ACTION
STOCKTAKE OF G20 CLIMATE ACTION
ANNUAL ASSESSMENT OF G20 MEMBERS’ PROGRESS ON PARIS AGREEMENT GOALS

PARIS AGREEMENT GOALS

Adaptation: Addressing and reducing vulnerability to climate change

Goal 1: Increase the ability to adapt to the adverse impacts of climate change and foster climate resilience and low-GHG development, in a manner that does not threaten food production.

Mitigation: Reducing emissions to limit global temperature increase

Goal 2: Hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change.

Finance: Making finance flows consistent with climate goals

Goal 3: Make finance flows consistent with a pathway towards low-GHG emissions and climate-resilient development.

[Diagram showing timelines for PARIS Agreement, Adaptation, Mitigation, and Finance with milestones from 2015 to 2030]
G20 NDC UPDATES

PARTIES TO THE PARIS AGREEMENT ARE EXPECTED TO UPDATE NDCS IN 2020

RECOMMENDATIONS FROM CLIMATE TRANSPARENCY’S NDC TRANSPARENCY CHECK

1. Provide a precise description of the target
2. Address fairness and ambition
3. Make a clear link to Paris Agreement goals
4. Detail planning processes
5. Describe the implementation plans

All parties to the Paris Agreement need to communicate their NDCs every five years.

Successive NDCs should represent a progression beyond the previous and reflect each party’s highest possible ambition.

NDCs define each party’s mitigation contribution, goals for adaptation, and how to make finance flows consistent with mitigation and adaptation goals.
COMPARING G20 CLIMATE ACTION: ADAPTATION
“The consequences of climate change can already be felt. We need to prepare and take decisive action now. The Climate Transparency Report names adaptation measures that are needed and what countries should include in their plans.”

CHRISTIANA FIGUERES

Founding Partner, Global Optimism and former Executive Secretary, UNFCCC
G20 members are vulnerable to climate change and need to adapt.

1.5°C benchmarks for adapting to global warming

• Global warming leads to changes in the frequency, intensity, duration, and timing of extreme weather events.

• Extreme climatic and weather-related events have brought about high economic and human costs to the G20.

• Global temperatures are already 1.1°C above preindustrial levels and are increasing.

Source: Own evaluation based on IPCC SR15
G20 COUNTRIES EXPERIENCE THE IMPACTS OF CLIMATE CHANGE

BETWEEN 1999 & 2018, G20 COUNTRIES LOST ABOUT 220,000 LIVES & USD 2.6TN TO EXTREME WEATHER EVENTS

**FATALITIES**

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<th>Fatalities: 1999–2018</th>
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**ECONOMIC LOSSES**

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**RANKING IN THE G20**

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**RANKING IN THE G20**

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<th>Losses in 2018 USD million (PPP)</th>
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<td>5 Argentina</td>
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Source: Germanwatch – Global Climate Risk Index 2020
G20 COUNTRIES NEED TO INVEST IN ADAPTATION

GLOBAL IMPACTS OF CLIMATE CHANGE ARE SIGNIFICANTLY HIGHER AT TEMPERATURES OVER 1.5°C

Some G20 countries may be exposed to greater than average weather- and climate-related impacts at 1.5°C:

- Australia, Brazil, France, Italy, Mexico, and Turkey will likely be exposed to severe water scarcity or droughts.
- Brazil and Indonesia may have considerably more frequent heatwaves.
- Australia, India, Mexico, Saudi Arabia, and South Africa will have many more days with extreme temperatures.
- Most G20 countries could experience a reduction in crop duration, reduced rainfall, and an increase in damaging hot spells for key crops, with impacts for local and global food security.

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<th>Baseline: 1981–2010</th>
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<td><strong>WATER SHORTAGES</strong></td>
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<td>% time in drought conditions</td>
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<td>Major heatwave frequency % likelihood</td>
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<td>Damaging hot spell frequency % likelihood</td>
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<td>Reduction in rainfall % likelihood</td>
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Source: Arnell, 2019

CLIMATE TRANSPARENCY REPORT | 2020 | ADAPTATION
RESOURCES FOR ADAPTATION MUST BE SCALED UP

19 G20 COUNTRIES HAVE ADAPTATION PLANS (SAUDI ARABIA IS THE EXCEPTION)

KEY OPPORTUNITIES FOR ENHANCING CLIMATE ADAPTATION

AGRICULTURE R&D & FOOD SECURITY
Global food demand is set to increase by 50% by 2050. Without ambitious adaptation and mitigation, yields may decrease by 30%.

PROTECT THE NATURAL ENVIRONMENT
Natural systems play an important regulatory and buffer function against the impacts of climate change as well as contributing to mitigation efforts.

INCREASE URBAN RESILIENCE
Cities are already home to half the world's population – and urbanisation rates are growing.

FUTURE PROOF INFRASTRUCTURE
Physical infrastructure will need to withstand the extremes of climate change.

INCREASE DISASTER PREPAREDNESS
Risk management can reduce the impacts of extreme events and make recovery quicker and cheaper.

Based on Global Commission on Adaptation, 2019
COMPARING G20 CLIMATE ACTION: MITIGATION
"The G20 represents some of the highest emitting countries in the world. They therefore have a responsibility to lead with ambitious climate action. The Climate Transparency Report not only helps these countries understand how much more they need to do, but also helps citizens in holding these governments accountable for implementing the Paris Agreement."

TAZNEEM ESSOP

Executive Director, Climate Action Network (CAN) International
G20 COUNTRIES NEED TO MITIGATE EMISSIONS TO LIMIT GLOBAL WARMING

THE G20 ARE NOT ON TRACK FOR A 1.5°C WORLD

The 2015 NDCs would lead to 2.7°C or higher global temperature increases

GHG emissions need to be 45% below 2010 levels by 2030 and reach net-zero by 2050

G20 members need to update NDC targets to reflect highest possible ambition in 2020/21

1.5°C BENCHMARKS TO LIMIT GLOBAL WARMING

To meet the 1.5°C goal, global net CO₂ emissions need to be 45% below 2010 levels by 2030 and will have to reach net-zero by 2050.

The share of fossil fuels in the global primary energy mix needs to fall to 67% by 2030 and to 33% by 2050 (and to substantially lower levels without Carbon Capture and Storage).

Sources: Own evaluation based on IPCC SR15; Kuramochi et al., 2017
PER CAPITA GHG EMISSIONS DECREASING IN 13 G20 MEMBERS

G20 COUNTRIES ACCOUNT FOR 90+% OF CUMULATIVE HISTORICAL CO₂ EMISSIONS & 75% OF CURRENT EMISSIONS

Per capita GHG Emissions (Incl. land use) in the G20 (2017)

Data for Argentina is for 2016 and trend for 2011-2016.
Sources: Climate Action Tracker, 2019; Güsschow et al., 2019; World Bank, 2019
77% G20 GHG EMISSIONS (PRIMARILY CO$_2$) FROM ENERGY

MITIGATION REQUIRES STRUCTURAL TRANSFORMATION IN ENERGY INTENSIVE SECTORS

G20 GHG Emissions by Sector (2017)

- 10% Agriculture
- 10% Industry
- 3% Waste
- 77% Energy

2017
37,175 MtCO$_2$e

Sources: Gütschow et al., 2019; Climate Action Tracker, 2020

G20 energy-related CO$_2$ emissions by sector (2019)

- 2% Agriculture
- 8% Energy Own Use
- 20% Transport
- 37% Power sector: 16% used in Buildings
- 17% used in Industry
- 24% Industry

Source: Enerdata, 2020
ENERGY-RELATED CO₂ DECREASED IN 2019 BY 0.1%

MORE RENEWABLE ENERGY, GREATER EFFICIENCY, AND SLOWER GDP GROWTH

Main factors influencing G20 energy-related CO₂ emissions in 2019

- Slower Economic Growth 2.9%
- Carbon intensity of energy sector decreased by 0.8%
- Energy intensity of the economy decreased by 1.4%

Source: Enerdata, 2020
FOSSIL FUELS STILL 81.5% OF G20 PRIMARY ENERGY

COAL DECREASED BY 2% IN G20 BUT MANY COUNTRIES SWITCHING TO OIL & GAS INSTEAD OF RENEWABLES

Energy mix in G20 countries in 2019

- Fossil fuels decreased by 1.7% in OECD G20 (coal -11%)
- Fossil fuels increased by 1.8% in non-OECD G20 (coal 0%)

Source: Enerdata, 2020
G20 MEMBERS ARE MAKING PROGRESS IN SOME SECTORS
ALL SECTORS NEED TO BE DECARBONISED TO MEET THE PARIS AGREEMENT MITIGATION GOAL

**G20 Emissions Intensity of the Power Sector** 2014-2019 (CO₂ emissions per kWh - % change)

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**G20 Growth in Share of Renewables** in Power Generation (incl. large hydro) 2014-2019 (% change)

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**G20 Transport Emissions** per capita (avg. aviation) 2013-2018 (CO₂e/capita - % change)

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**2019 TURNING POINTS**
CO₂ energy-related emissions down 0.1% in 2019
- Carbon-intensity of primary energy supply -0.8%
- Coal consumption -2%
- CO₂ emissions from the power sector -2.4%
- 27% of power generated from RE, compared to 25% in 2018
- Energy-related CO₂ emissions from the agriculture sector -0.5%

**2019 STICKING POINTS**
Fossil fuels still 81.5% of primary energy | transport, industry, and forestry require more urgent action
- Consumption grew in Gas +3% and Oil +1%
- CO₂ emissions from the transport sector +1.5%
- CO₂ emissions from the building sector +0.9% in 2019
- CO₂ emissions from the industry sector +1.2%
G20 MEMBERS ARE MAKING PROGRESS ON POWER SECTOR DECARBONISATION

1.5°C BENCHMARKS TO LIMIT GLOBAL WARMING

Global power (electricity) generation must be decarbonised and the share supplied by renewable energy and other CO₂-free technologies needs to increase to 98-100% by 2050.

Coal use in the power sector needs to peak by 2020 and phase out rapidly. Coal must be completely phased out by 2030 in the EU/OECD, by 2037 in non-OECD Asia, and by 2040 in the rest of the world.

Sources: Own evaluation based on IPCC SR15; Kuramochi et al., 2017

Between 2014 and 2019:

- emissions intensity of the power sector in the G20 decreased by 10%
- share of renewables in power generation grew by 20% in the G20

G20 ENERGY-RELATED CO₂ EMISSIONS 2019 – POWER SECTOR

37.5%

Annual growth rate

-2.4% in 2019

+2.5% in 2018

+1.6% 2005-2017

Source: Enerdata, 2020
G20 EMISSION INTENSITY OF THE POWER SECTOR 2019

18 G20 MEMBERS DECREASED THE EMISSIONS INTENSITY OF THEIR POWER SECTORS BETWEEN 2014 AND 2019

Source: Enerdata, 2020
SHARE OF RENEWABLES IN POWER GENERATION 2019

18 G20 MEMBERS INCREASED SHARE OF RENEWABLES IN POWER GENERATION BETWEEN 2014 AND 2019

Share of renewables (incl. large hydro) in power generation in the G20 (2019)

Source: Enerdata, 2020
SHARE OF RENEWABLES GREW TO 27% IN G20 IN 2019

RENEWABLES 27% OF GROSS POWER GENERATION IN THE G20, COMPARED TO 22% IN 2014 AND 19% IN 2010.

Source: Enerdata, 2020
### RENEWABLE ENERGY POLICIES

- No G20 countries have 1.5°C compatible targets for renewable energy
- Brazil, Germany, and the UK have ambitious renewable energy targets
- Australia, Mexico, USA, and Canada do not have policies in place to increase renewables.

#### Policy rating: Renewable Energy in the Power Sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Policy Rating</th>
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<tbody>
<tr>
<td>Argentina</td>
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<tr>
<td>Australia</td>
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<tr>
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<tr>
<td>United Kingdom</td>
<td>High</td>
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<tr>
<td>USA</td>
<td>Low</td>
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</tbody>
</table>

- **Low**: No policy to increase the share of renewables
- **Medium**: Some policies to increase the share of renewables
- **High**: Policies and longer-term strategies / targets to significantly increase the share of renewables
- **Front-runner**: Short-term policies + long-term strategies for 100% renewables in the power sector by 2050 in place
COAL PHASE-OUT POLICIES

- Canada, France, Italy, and the UK have 1.5°C compatible coal phase out targets (by 2030 or earlier).
- Germany follows with a phase-out date of 2038.
- G20 members with the highest coal dependence, including South Africa, Indonesia, and China, do not have coal phase-out targets.
TRANSPORT SECTOR

G20 TRANSPORT EMISSIONS CONTINUE TO GROW IN LINE WITH LONG-TERM TRENDS

1.5°C BENCHMARKS TO LIMIT GLOBAL WARMING

To meet the 1.5°C goal, the share of low-carbon fuels in the transport fuel mix must increase to about 60% by 2050 globally.

The last fossil fuel passenger vehicle should be sold by 2035 and the entire passenger fleet should move to 100% zero-carbon by 2050. Heavy-duty vehicles also need to switch to low-carbon fuels by 2050.

A 1.5°C compatible pathway for aviation and shipping is needed and should include plans to increase aircraft efficiency, switch to low-carbon fuels, and encourage modal shifts in demand.

Source: Own evaluation based on IPCC SR15; Kuramochi et al., 2017

G20 ENERGY-RELATED CO₂ EMISSIONS 2019 – TRANSPORT SECTOR

Between 2013 and 2018: G20 transport emissions per capita (excl. aviation) increased by 6%

Between 2012 and 2017: G20 aviation emissions per capita grew by 19%

Source: Enerdata, 2020
G20 PER CAPITA TRANSPORT EMISSIONS (EX. AVIATION) 2018

PER CAPITA TRANSPORT EMISSIONS GREW IN 10 G20 MEMBERS BETWEEN 2013 AND 2018

Sources: Enerdata, 2020; The World Bank, 2019
PER CAPITA AVIATION EMISSIONS INCREASED IN ALL BUT 2 G20 MEMBERS BETWEEN 2011 AND 2017

G20 countries with the highest global share of passenger aviation emissions in 2018:

- USA (23%)
- China (13%)
- the UK (4.1%)
- Japan (3.1%)
- Germany (2.9%)

Source: International Council on Clean Transportation
POLICIES FOR TRANSPORT DECARBONISATION

G20 MEMBERS ARE LAGGING WHEN IT COMES TO AMBITIOUS TRANSPORT POLICIES

FOSSIL FUEL CAR PHASE OUT

The UK is in the process of setting a 2030 target for the last sale of a fossil fuel car, followed by Canada and France with a 2040 target, and Japan 2050. Australia and Russia have no policies in place.

HEAVY DUTY VEHICLE DECARBONISATION

No countries have ambitious policies for decarbonising heavy duty vehicles.

MODAL SHIFTING (GROUND) TRANSPORT

No countries have ambitious policies with long-term strategies for modal shifting in ground transport. Australia has no policies in place.
G20 building sector emissions continued to grow in 2019, more needed to decrease sector emissions.

G20 building sector emissions increased by 0.9% in 2019, recovering somewhat from an unexpected divergence from the long-term trend (+0.1%) in 2018 when emissions grew by 3.2%.
G20 PER CAPITA BUILDING SECTOR EMISSIONS 2019

G20 BUILDING SECTOR EMISSIONS DECREASED IN 15 G20 MEMBERS BETWEEN 2014 AND 2019

Building emissions (incl. indirect emissions) per capita in the G20 (2019)

% change 2014-2019

Source: Enerdata, 2020
POLICIES TO DECARBONISE BUILDING SECTOR

MANY G20 MEMBERS HAVE AMBITIOUS POLICIES FOR NEW BUILDINGS, MORE NEEDED FOR EXISTING BUILDINGS

NEAR-ZERO NEW BUILDINGS

France, Italy, and Germany are frontrunners (1.5°C compatible policies) and 7 G20 countries have high ambition policies in place. Only Russia and Argentina have no policies.

RETROFIT EXISTING BUILDINGS

No G20 countries have 1.5°C compatible policies for retrofitting existing buildings. EU, Germany, and France are leading with high ambition policies.
INDUSTRY SECTOR

G20 INDUSTRY EMISSIONS ARE STILL GROWING – A HARD TO ABATE SECTOR, MORE INNOVATION NEEDED

1.5°C BENCHMARKS TO LIMIT GLOBAL WARMING

- Global emissions from buildings need to be halved by 2030, and be 80-85% below 2010 levels by 2050, mostly through increased efficiency, reduced energy demand and electrification.
- All new buildings need to be zero-energy compliant by 2020 in the OECD and 2025 in non-OECD countries.
- The existing building stock needs annual deep renovation rates of 5% in the OECD and 3% in non-OECD countries by 2020.

Source: Own evaluation based on IPCC SR15; Kuramochi et al., 2017

G20 ENERGY-RELATED CO₂ EMISSIONS 2019 – BUILDING SECTOR

- 8.8% Direct emissions
- 15.6% Electricity-related emissions
- Annual growth rate: +0.9% in 2019
- +3.2% in 2018
- +0.01% 2005-2017

Source: Enerdata, 2020

- The industry sector has the highest share of energy-related CO₂ emissions in the G20, and emissions are growing.
- Decreasing industry emissions will require electrification and efficiency + zero-carbon technology developments, such as green-hydrogen.
G20 EMISSIONS INTENSITY OF INDUSTRY 2016

EMISSIONS INTENSITY OF INDUSTRY DECREASED IN 15 G20 MEMBERS BETWEEN 2011 AND 2016

Emissions intensity in industry is higher in non-OECD countries than in OECD countries due to:

- shift in heavy industry to emerging and developing countries
- differences in technological standards and regulations
- higher share of GDP coming from energy-intensive industry

Sources: Gütschow et al., 2019; Enerdata, 2020
INDUSTRY EFFICIENCY POLICIES

G20 MEMBERS ARE USING EFFICIENCY POLICIES TO DECREASE EMISSIONS FROM INDUSTRY

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<thead>
<tr>
<th>Energy Efficiency Policies</th>
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- **Low**: 0–49% average score on the policy-related metrics in the ACEEE’s International Energy Efficiency Scorecard
- **Medium**: 50–79% average score on the policy-related metrics in the ACEEE’s International Energy Efficiency Scorecard
- **High**: 80–89% average score on the policy-related metrics in the ACEEE’s International Energy Efficiency Scorecard
- **Front-runner**: over 90% average score on the policy-related metrics in the ACEEE’s International Energy Efficiency Scorecard

INDUSTRY EFFICIENCY

- Italy and Japan are frontrunners
- Germany and India follow with high ambition policies
- 8 G20 members have few efficiency policies in place for industry.
AGRICULTURE & LAND USE

AGRICULTURE, FORESTRY, AND OTHER LAND USE ACCOUNTED FOR 23% OF GLOBAL GHG EMISSIONS FROM 2007–2016

Energy-related CO₂ emissions make up only a small percentage of GHG emissions, with the bulk of CO₂ arising from forestry and other land use (FOLU), and methane (CH₄) and nitrous oxide (N₂O) emissions from agriculture.
Higher demand for food, feed, water, and more resource-intensive production and consumption are driving emissions upward.

In addition to CO₂ emissions, agriculture is responsible for 45% of methane emissions and 80% of nitrous oxide emissions globally.

Livestock breeding is the main driver, accounting for over 40% of agricultural emissions in 2017. Demand for livestock and feed also contributes to GHG emissions through the destruction of forests and other natural land for grazing, production of fodder, and pasture.
G20 COUNTRIES NEED TO SET TARGETS FOR ZERO DEFORESTATION

**Net-Zero deforestation policies**

- **Argentina**
- **Australia**
- **Brazil**
- **Canada**
- **China**
- **EU**
- **France**
- **Germany**
- **India**
- **Indonesia**
- **Italy**
- **Japan**
- **Mexico**
- **Russia**
- **Saudi Arabia**
- **South Africa**
- **South Korea**
- **Turkey**
- **United Kingdom**
- **USA**

**Low**

- No policy or incentive to reduce deforestation in place

**Medium**

- Some policies: Incentives to reduce deforestation or support schemes for afforestation / reforestation in place

**High**

- Policies + national target for reaching net-zero deforestation

**Front-runner**

- Policies + national target for reaching zero deforestation by 2020s or for increasing forest coverage

**NET-ZERO DEFORESTATION:**

**ZERO DEFORESTATION BY 2020s & INCREASING FOREST COVERAGE**

- China, EU, and Mexico have the most ambitious policies but not yet 1.5°C compatible.

- Australia, Canada, and France, have no policies in place to reduce deforestation.
The transformation of key industries in response to the threat of climate change will affect workers and communities.

At COP24 in 2018, the Solidarity and Just Transition Silesia Declaration was adopted. Ten G20 members are signatories: Argentina, Canada, the EU, France, Germany, Indonesia, Japan, South Korea, the UK, and USA.

Significant developments have been made in incorporating just transition principles, for example, in coal phase-out plans in Canada, Germany, the EU, and South Africa.

G20 countries can and should develop national just transition policies.
COMPARING G20 CLIMATE ACTION: FINANCE
“We are at a crossroads: one road leads to climate crisis, the other to a resilient, sustainable and inclusive future. G20 leaders need to reaffirm their commitment to the correct course by accelerating climate action and aligning their financial systems with the Paris goals and the SDGs. The Climate Transparency Report provides a stocktake of and identifies clear opportunities for enhancing G20 climate action.”

Laurence Tubiana, CEO European Climate Foundation
Accounting for 85% of global GDP and two thirds of global foreign direct investment flows, the G20 has a critical role to play in achieving this third goal of the Paris Agreement.
TOOLS TO ALIGN FINANCIAL FLOWS WITH CLIMATE GOALS

G20 MEMBERS ARE MAKING PROGRESS IN TRANSFORMING THE FINANCIAL SYSTEM

Financial Policies & Regulations
Includes: green finance principles, risk disclosure, climate stress tests, enhanced capital liquidity requirements.

Fiscal Policies
Includes: ending fossil fuel subsidies, subsidising low-carbon technology, carbon pricing.

Public Finance
Includes: domestic and international public finance and investment, climate finance.
FINANCIAL POLICIES & REGULATIONS

G20 ECONOMIES CAN LEAD IN GREENING THEIR FINANCIAL SYSTEMS

Principles to align prudential and climate change objectives

17 G20 COUNTRIES initiated discussions or are already implementing some form of green finance principles (India, Saudi Arabia, and South Korea are the exceptions).

Evaluating the resilience of the finance system to climate shocks

7 G20 COUNTRIES introduced climate-related risk assessment and climate stress-test, only in Indonesia are these mandatory.

Disclosing climate-related risks to financial institutions

13 G20 COUNTRIES have implemented or are discussing climate risk disclosure requirements. In Brazil, China and France such disclosures are already mandatory.

Limiting commercial banks’ exposure to climate-related risks and incentivising low-carbon lending

5 G20 COUNTRIES use some form of enhanced capital and liquidity requirements (China, India, Indonesia, Japan, and South Korea).

GREEN FINANCIAL PRINCIPLES

G20 countries have acknowledged the need to adjust national financial system architectures.

MACRO-PRUDENTIAL POLICIES

G20 countries are making steady progress on advancing macro-prudential policies aimed at reducing and managing the risks that climate change poses to the financial system.
G20 countries (excluding Saudi Arabia, Turkey, and the UK) provided USD 130bn in subsidies to coal, oil, and gas in 2019. This represents an increase on USD 117bn in 2018.
G20 FOSSIL FUEL SUBSIDIES IN 2019

Absolute fossil fuel subsidies: China, Mexico, India, Russia, Italy, France, Indonesia, and the USA were all above the G20 average in 2019.

Per unit of GDP: Mexico, South Africa, Australia, Argentina, Italy, France, and Russia are all above the G20 average.

Source: OECD-IEA Fossil Fuel Support database, 2020
FISCAL POLICIES

CARBON PRICING SCHEMES

18 G20 COUNTRIES are implementing explicit carbon-pricing schemes, such as carbon taxes and emission trading schemes (ETS) – India and Australia are the exceptions.

HIGHEST CARBON TAX (USD/tCO₂e)

France (48.6), South Korea (31.2), and the EU (27.9)

HIGHEST % OF EMISSIONS COVERED BY CARBON TAX

South Africa (80%), South Korea (70%), and Japan (68%)

TOP CARBON REVENUES IN 2019 (USD)

EU 17.5bn, France 10.1bn, Canada 5.6bn, Germany 3.6bn, USA 3.1bn, Japan 2.4bn, Italy 1.5bn, UK 1.2bn
G20 COUNTRIES ARE BEGINNING TO RESTRICT PUBLIC FINANCE FOR FOSSIL FUELS ABROAD AND AT HOME

Between 2016 and 2018, G20 public institutions provided an average of USD 65bn per year to fossil fuels through public finance.

Highest average and per unit of G20 public finance for fossil fuels 2016-2018:

- China (USD 24.8bn)
- Canada (USD 10.6bn)
- Japan (USD 9.5bn)
- and South Korea (USD 6.4bn)
PUBLIC FINANCE

DEVELOPED G20 MEMBERS ARE OBLIGED TO PROVIDE CLIMATE FINANCE UNDER THE PARIS AGREEMENT

Japan remains the largest contributor of climate finance among the G20 with flows delivered predominantly through the Japanese Bank for International Cooperation (JICA), typically with a mitigation focus and lower concessionality than other contributors.

Germany and France follow, making use of KfW and the French Development Agency (AFD), respectively.

While not obliged under the UNFCCC, Russia has provided data on climate finance provision in its reporting to the UNFCCC.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total USD millions (2017/18 average, constant PPP)</th>
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<td>Russia</td>
<td>7.28</td>
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<td>Canada</td>
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<td>632.73</td>
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<td>8,398.22</td>
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<td>Japan</td>
<td>12,253.49</td>
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<td><strong>Total</strong></td>
<td><strong>43,123.45</strong></td>
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ALIGNING FINANCIAL FLOWS WITH CLIMATE GOALS

KEY OPPORTUNITIES FOR THE G20

GREEN THE FINANCIAL SYSTEM

PHASE OUT FOSSIL FUEL SUBSIDIES BY 2025

HIGH-COVERAGE CARBON PRICING:
USD 40-80 by 2020 & USD 50-100 by 2030

END PUBLIC FINANCE FOR FOSSIL FUELS

SUFFICIENT & PREDICATABLE CLIMATE FINANCE
THANK YOU

https://www.climate-transparency.org/