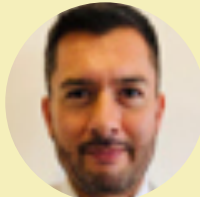


Resultados de México en el Reporte sobre la Transparencia Climática 2020

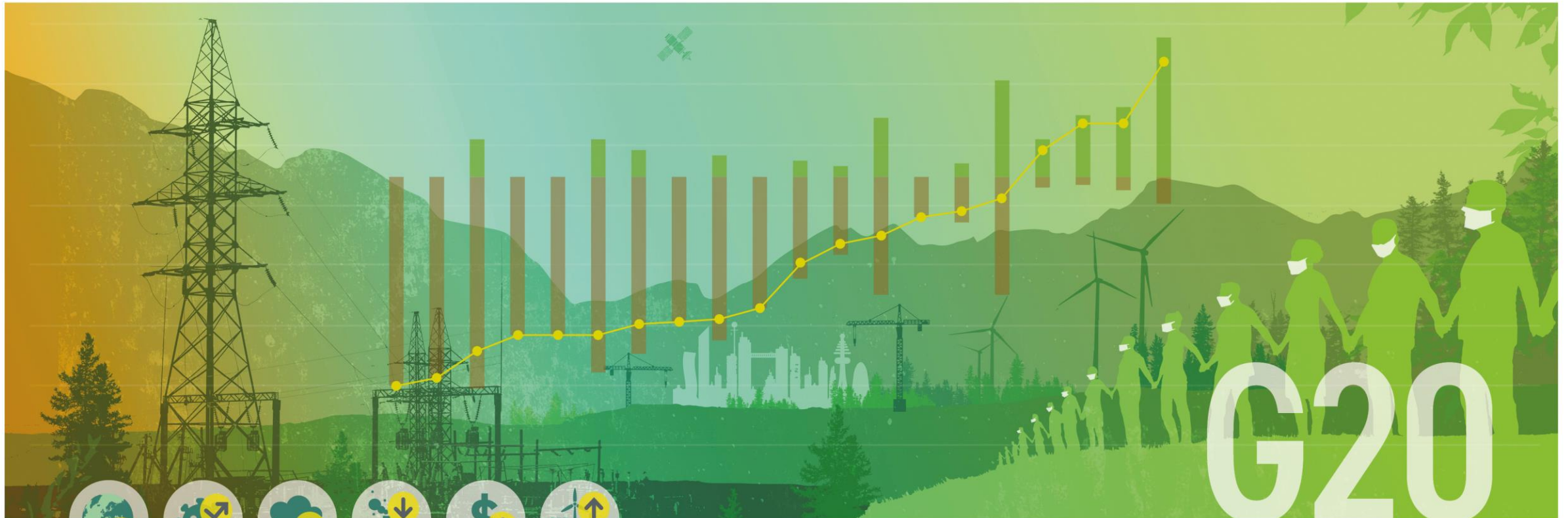
AGENDA

HORARIO	ACTIVIDAD	PARTICIPANTES
11:00-11:05	Bienvenida e introducción a la sesión	Mariana Gutiérrez Grados y Jorge Villarreal Padilla, Iniciativa Climática de México (ICM)
11:05-12:00	Contexto de la acción climática en América Latina: avances, retrocesos y oportunidades en México, Argentina y Brasil.	 Mariana Gutiérrez Grados, ICM (México)  William Wills, Centro Clima (Brasil)  Enrique Maurtua, FARN (Argentina)
12:00-12:40	Análisis de transparencia: Contribución Nacionalmente Determinada de México	 Jorge Villarreal Padilla, ICM (México)  Andrew Marquard, Universidad de Cape Town (Sudáfrica)
12:40-13:00	Conclusión	Jorge Villarreal Padilla (ICM)

[REGÍSTRESE AQUÍ](#)

CLIMATE TRANSPARENCY REPORT | 2020

Análisis comparable de la acción climática y respuestas ante COVID 19 del G20



Iniciativa Climática de México

Resultados de México en el Reporte

Seminario en línea

30 Noviembre 2020

Recording...

Iniciativa Climát...

Por favor integren sus comentarios en el Chat / You may include your comments here.

Pueden seleccionar el idioma que prefieran escuchar (Inglés o Español) / You may choose your preferred language (English/ Spanish)

Mute Start Video Security Participants Polls Chat Share Screen Pause/Stop Recording Breakout Rooms Support Interpretation Reactions More End

AGENDA

RESULTADOS DE MÉXICO: CLIMATE TRANSPARENCY REPORT | 2020

- Mensaje introductorio:
 - Jorge Villarreal Padilla, ICM
 - Alvaro Umaña, CT
- Resultados clave para América Latina en Climate Transparency Report | 2020
 - Avances, retrocesos y oportunidades en México, Argentina y Brasil
- Análisis de transparencia a la NDC de México (2016)
- Mensaje final y conclusion: Jorge Villarreal Padilla, ICM



INICIATIVA CLIMÁTICA DE MÉXICO

RESULTADOS DE MÉXICO: CLIMATE TRANSPARENCY REPORT | 2020

- Diseña e impulsa la implementación de políticas, programas y proyectos de mitigación de gases y compuestos de efecto invernadero a nivel nacional y subnacional.
- Nuestra finalidad es atender la emergencia climática y promover un desarrollo integral, socialmente inclusivo y de bajo carbono en México.



SOBRE CLIMATE TRANSPARENCY Y EL REPORTE

COMPARACIÓN DE LA ACCIÓN CLIMÁTICA Y LAS RESPUESTAS DEL G20 A COVID19



Nuestra **asociación global** reúne a expertos de centros de investigación y ONGs de la mayoría de los países del G20.



Nuestra misión es **incentivar acciones climáticas ambiciosas** en los países del G20: ofrecemos **información** a los tomadores de decisiones y estimulamos el debate nacional.



Nuestro Reporte sobre la Transparencia Climática es el informe anual con la visión más integral del mundo **sobre acción climática en el G20**: ofrecemos información concisa y comparable sobre mitigación, financiamiento y vulnerabilidad.

El Reporte sobre la Transparencia Climática | 2020 está integrado por un Reporte y Diagnósticos para cada país.



Reporte

<https://bit.ly/3nSZbba>



Diagnóstico por país

<https://bit.ly/3q1B8Jn>

SOCIOS



SOCIOS DE DATOS



FUNDADORES



Supported by:



based on a decision of the German Bundestag





¿CUÁLES SON LOS AVANCES, RETOS Y OPORTUNIDADES EN MÉXICO?

Consulta el Diagnóstico de México en: <https://bit.ly/3q1B8Jn>

G20- RESPUESTA AL CAMBIO CLIMÁTICO

LA ACCIÓN CLIMÁTICA ES FUNDAMENTAL PARA ALCANZAR UN FUTURO MÁS RESILIENTE, EQUITATIVO Y SOSTENIBLE

- El G20 es responsable del 90% de las emisiones globales de CO₂ y alberga 2/3 de la población mundial.
- El conjunto de esfuerzos climáticos (NDCs) del G20 son insuficientes para alcanzar la trayectoria de emisiones del AP.
- Eventos climáticos extremos como huracanes, incendios, olas de calor y lluvias torrenciales se han intensificado a causa de la actividad humana.



**GLOBAL TEMPERATURES
ARE ALREADY 1.1°C ABOVE
PRE-INDUSTRIAL LEVELS**

El Acuerdo de París plantea metas para hacer frente al cambio climático en tres ámbitos:

ADAPTAR

Adaptarse a los efectos asociados al cambio climático y fomentar la resiliencia

MITIGAR

Reducir emisiones para limitar el incremento de la temperatura en 1.5°C y alcanzar emisiones netas cero al 2050.

FINANCIAR

Alinear el flujo de financiamiento a una trayectoria compatible con 1.5°C.

MEXICO



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

- Cada año se registran 126 fallecimientos y se pierden 3 billones de dólares (28 MMDP) por los eventos meteorológicos asociados a cambio climático.



**HIGH COST OF
EXTREME WEATHER**

Perdemos 9 de cada 10 pesos planeados para el gasto total del sector ambiental federal¹.

¹Cámara de Diputados (2020). Presupuesto de Egresos de la Federación para el Ejercicio Fiscal de 2021. Anexo B. Ramo Medio Ambiente y Recursos Naturales.

- Alcanzar el incremento de temperatura de 3°C implicaría 110 días al año con temperaturas superiores a 35°C.



**110 DAYS
ABOVE 35°C**

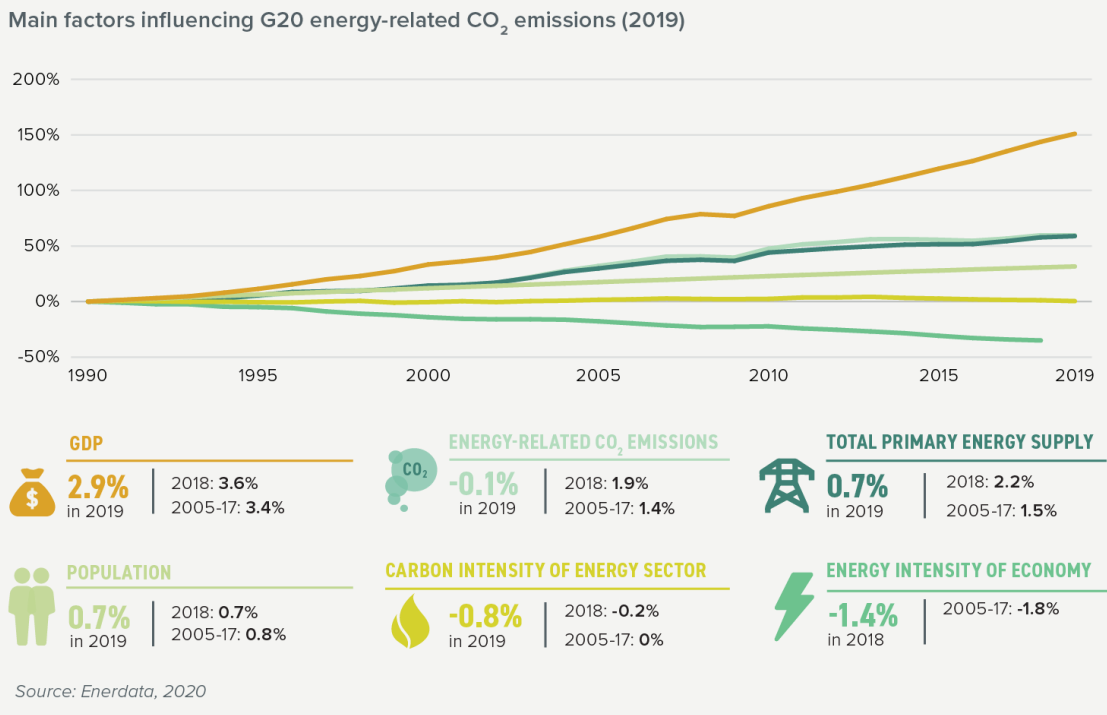
Sequías y olas de calor impactarán los sistemas productivos y se agudizará la escasez hídrica en el país.

G20:
EMISIONES DE
CO₂ VINCULADAS
A ENERGÍA
DISMINUYERON

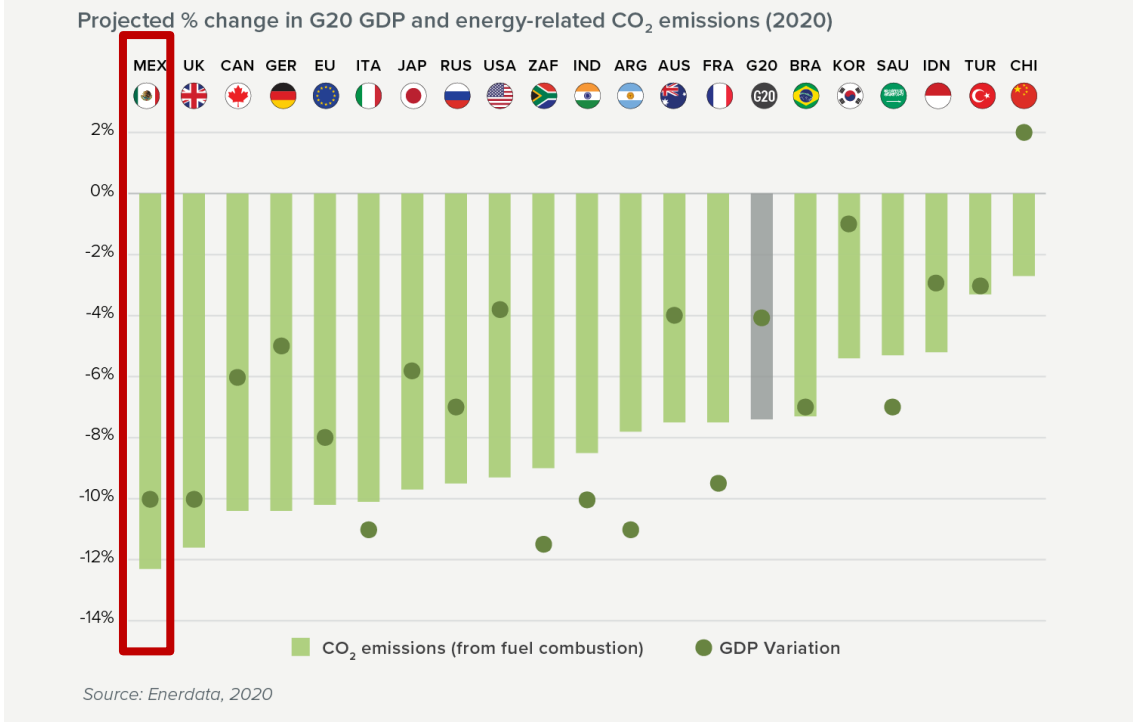


LAS EMISIONES DE CO₂ VINCULADAS A LA ENERGÍA REPRESENTAN 75% DE LAS EMISIONES GEI DEL G20

Las emisiones del G20 **cayeron 0.1% en 2019.**



A raíz de COVID 19 las emisiones **disminuirán 7.5% en 2020**



MÉXICO: EMISIONES GEI CONTINÚAN AUMENTANDO



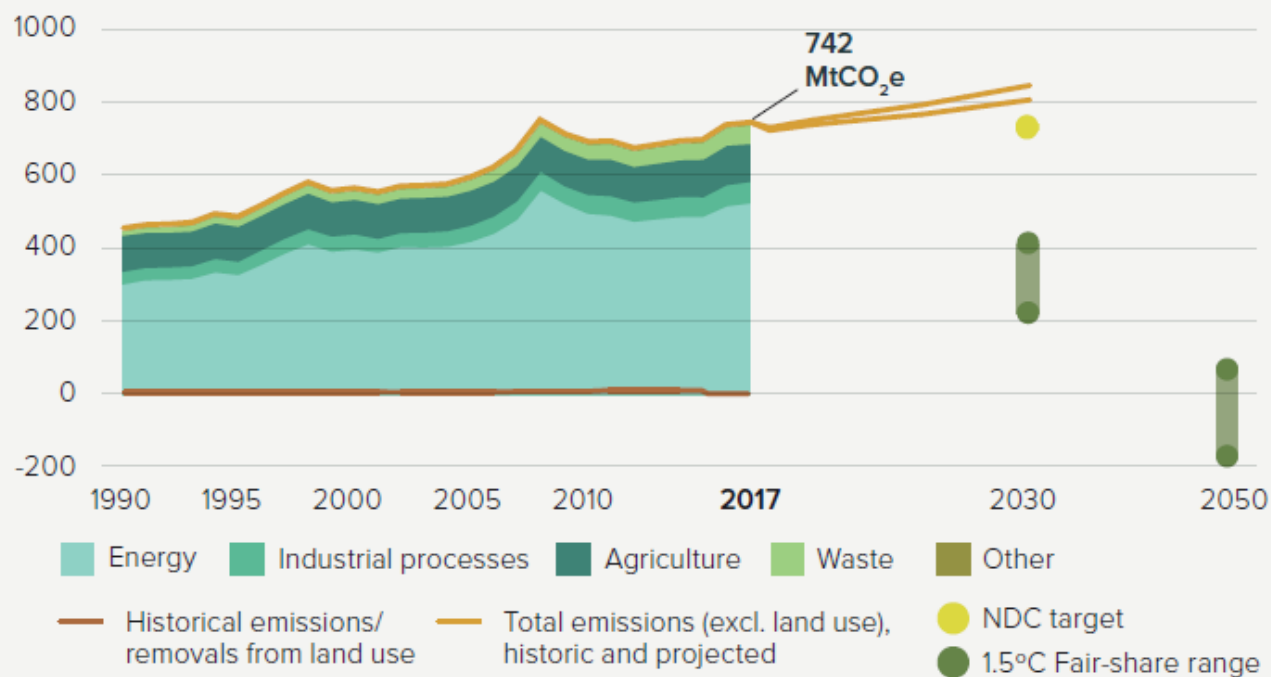
Las refinerías mexicanas, en promedio, 25% de cada unidad que entra a refinar se convierte en residuo (combustóleo). EE: Hugo Salazar

MEXICO



Emisiones GEI por sector y rango de participación justa de CAT (MtCO₂e/al año)

Total GHG emissions across sectors (MtCO₂e/year)



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

- Las metas contenidas en la NDC de México presentada en 2016, no se encuentran en la trayectoria de 1.5°C².
- Escenario 1.5°C:** Las emisiones globales de CO₂ deben estar 45% debajo de los niveles de 2010 y alcanzar emisiones netas cero al 2050³.

² CAT (2020) NDC targets: Mexico. Climate Action Tracker.

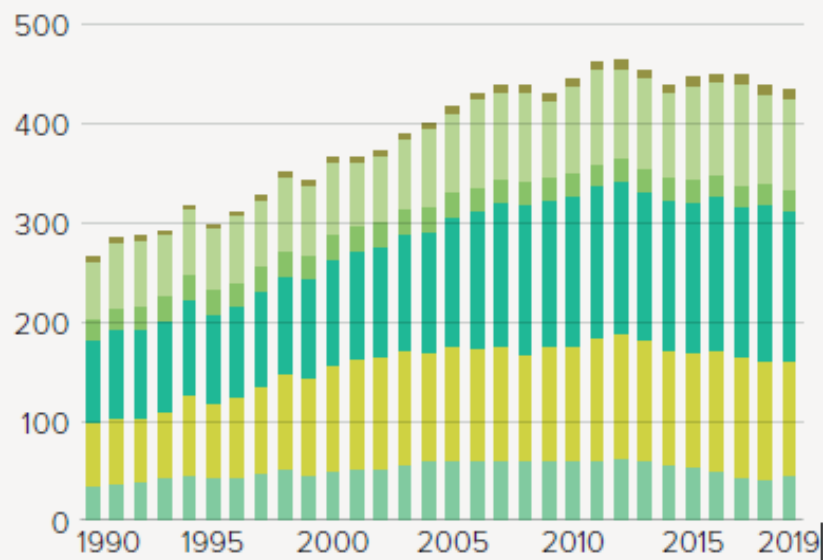
³ Rogelj, J. et al. (2018). Mitigation Pathways Compatible with 1.5°C.

MEXICO

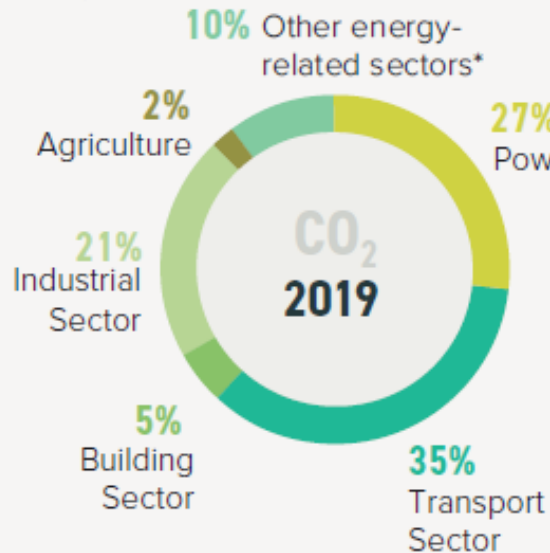


Energy-related CO₂ emissions by sector

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%.



- Distribución sectorial constante, con ligera disminución.

El **transporte y la generación de electricidad** (con 35 y 27%, respectivamente) son los sectores que más contribuyen a las emisiones.

G20: SECTOR ENERGÉTICO AVANZA HACIA LA DESCARBONIZACIÓN



UK | A jack up barge on the foreshore near Workington, installing the power cable that will carry electricity from the Robin Rigg offshore wind farm.
Photo by Ashley Cooper/Construction Photography/Avalon/Getty Images.

EN LOS ÚLTIMOS CINCO AÑOS, LA INTENSIDAD DE EMISIONES EN EL SECTOR DISMINUYÓ 10% Y LAS RENOVABLES AUMENTARON 20%

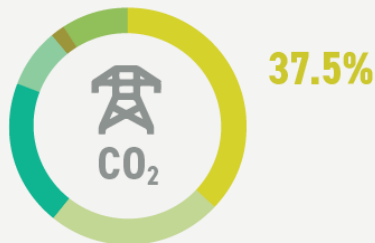
Para alcanzar el escenario 1.5°C:



5 miembros del G20 definieron fechas para sustituir el carbón.

13 países han definido restricciones para el financiamiento del carbón al interior y exterior.

G20 ENERGY-RELATED CO₂ EMISSIONS 2019 – POWER SECTOR



Annual
growth rate

-2.4%
in 2019

+2.5%
in 2018
+1.6%
2005-2017

En el G20, las emisiones de CO₂ asociadas a la energía disminuyeron 2% durante 2019.

Source: Enerdata, 2020

MEXICO



PHASE OUT COAL

- México forma parte de Past Coal Alliance pero **no ha definido un plan para la salida** y sustitución progresiva del carbón.
- **México anunció la** compra de más carbón, la modernización de plantas carboníferas y la creación de una planta adicional.

MEXICO



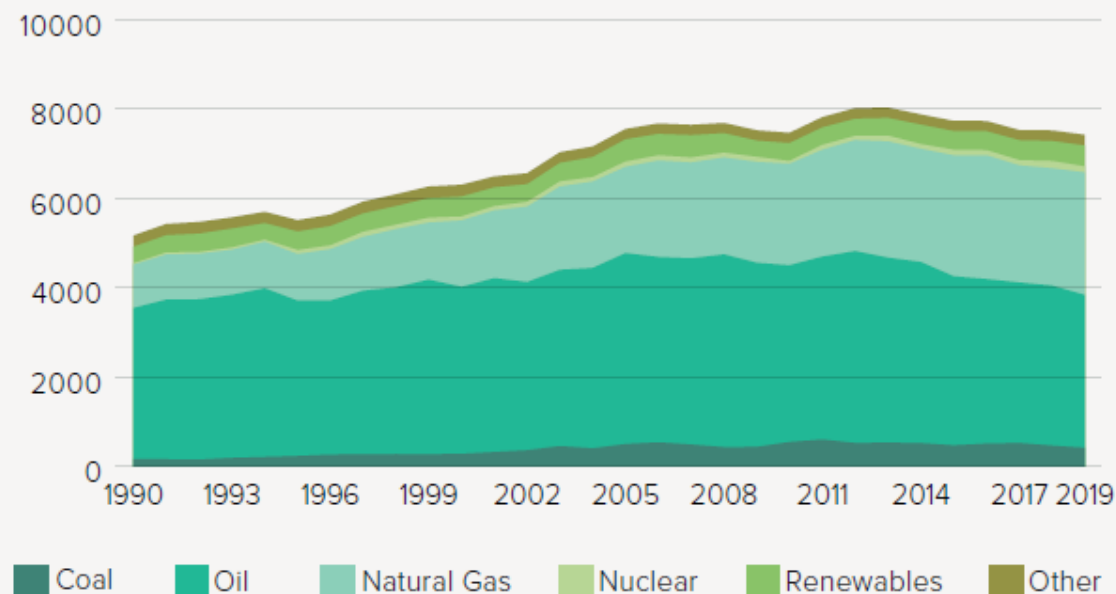
Climate
Transparency



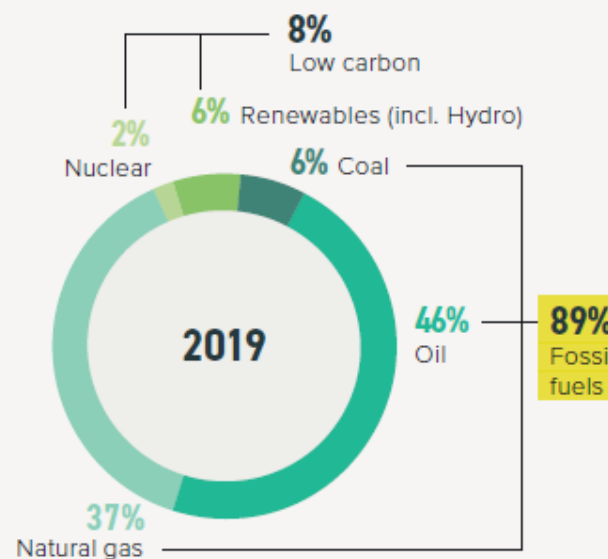
CLIMATE TRANSPARENCY REPORT COMPARING G20 CLIMATE ACTION AND RESPONSES TO THE COVID-19 CRISIS

Energy Mix

Total primary energy supply (PJ)



Source: Enerdata, 2020



Due to rounding, some graphs may sum to slightly above or below 100%.

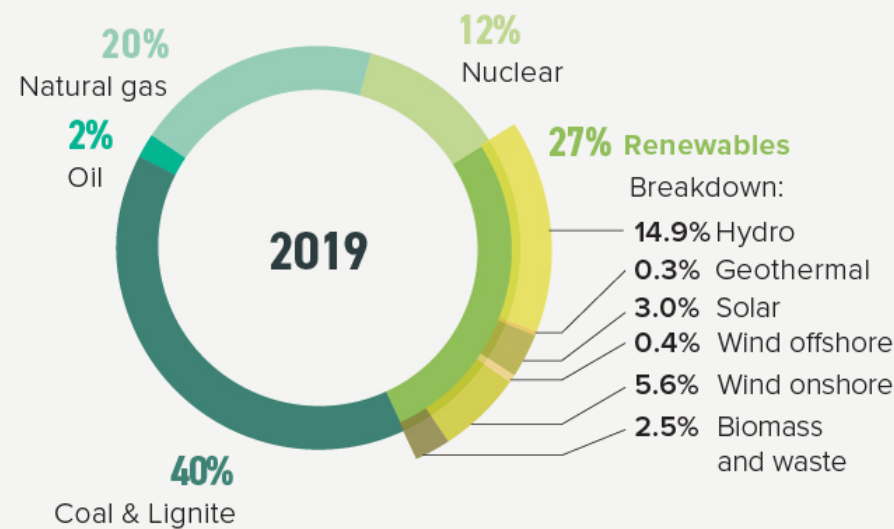
- Empatar esfuerzos de descarbonización con **reducción de desigualdad y pobreza energética.**
- **Reducir conflictividad social** mediante proyectos de energía renovable de distintas escalas.

G20: **LAS ENERGÍAS** **RENOVABLES** **SIGUEN** **INCREMENTANDO** **SU PARTICIPACIÓN**



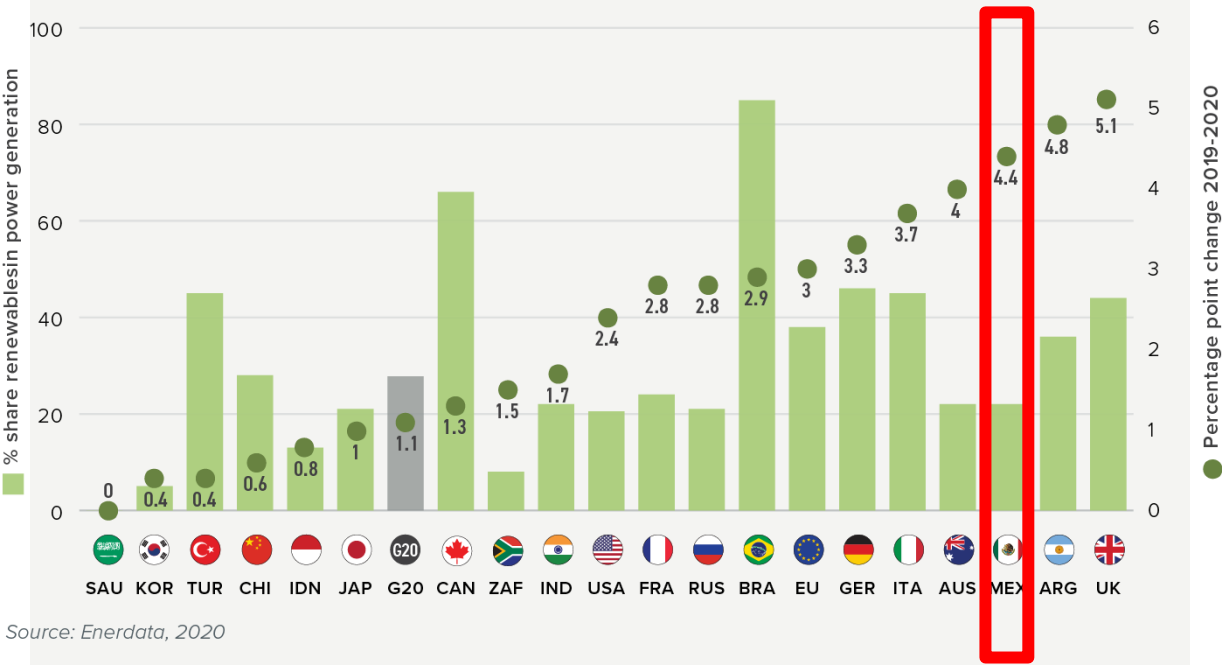
LAS ENERGÍAS RENOVABLES SE POSICIONAN COMO ALTERNATIVAS COMPETITIVAS EN GRAN PARTE DEL G20

La participación de las renovables en la generación de electricidad **alcanzó 27% in 2019**



Se **proyecta que su participación aumente a 28% en 2020**

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



Source: Enerdata, 2020

G20:

**PAQUETES DE
RECUPERACIÓN
ECONÓMICA
CLAVE PARA EL
FUTURO**

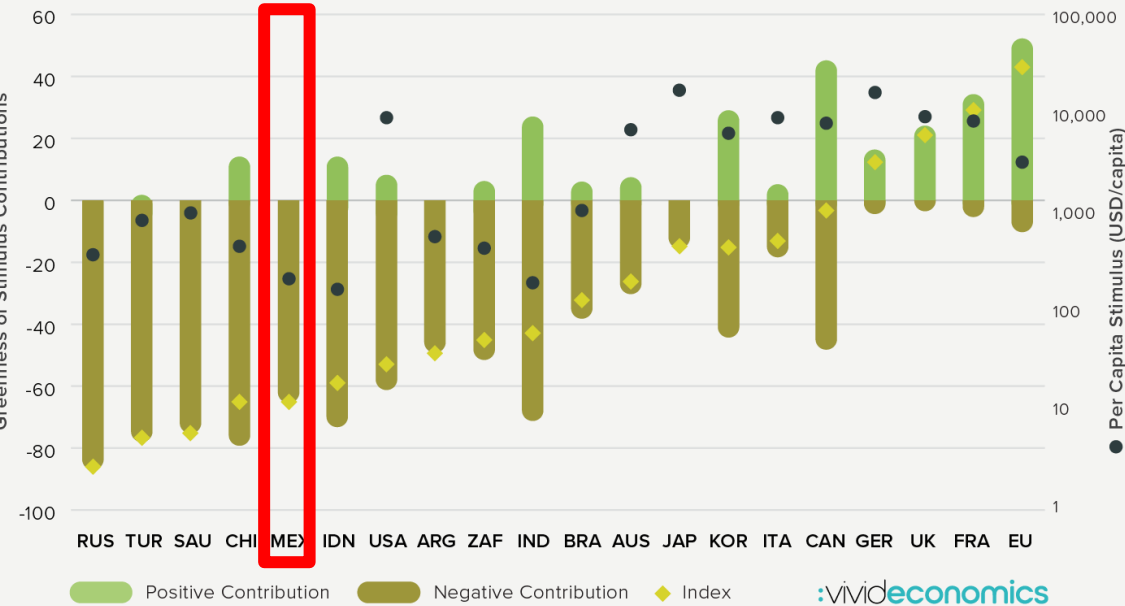
**A SUSTAINABLE
GLOBAL RECOVERY
IS IN THE INTEREST OF ALL**

USA | A worker installs photovoltaic solar panels on the roof of a department store in New Jersey. Photo by Robert Nickelsberg/Getty Images

LA MAYORÍA DE LOS PAÍSES DEL G20 INVIERTE EN INDUSTRIAS CONTAMINANTES

Las respuestas del G20 a COVID podrían repuntar emisiones

Greenness of Stimulus Index (October 2020)



- 1 Inversión en infraestructura sostenible
- 2 Invertir en soluciones basadas en la naturaleza y el cuidado ambiental
- 3 Invertir en educación, investigación e innovación científica
- 4 Medidas de rescate con condicionantes ambientales..
- 5 Fortalecer políticas, regulaciones e incentivos para la sostenibilidad.

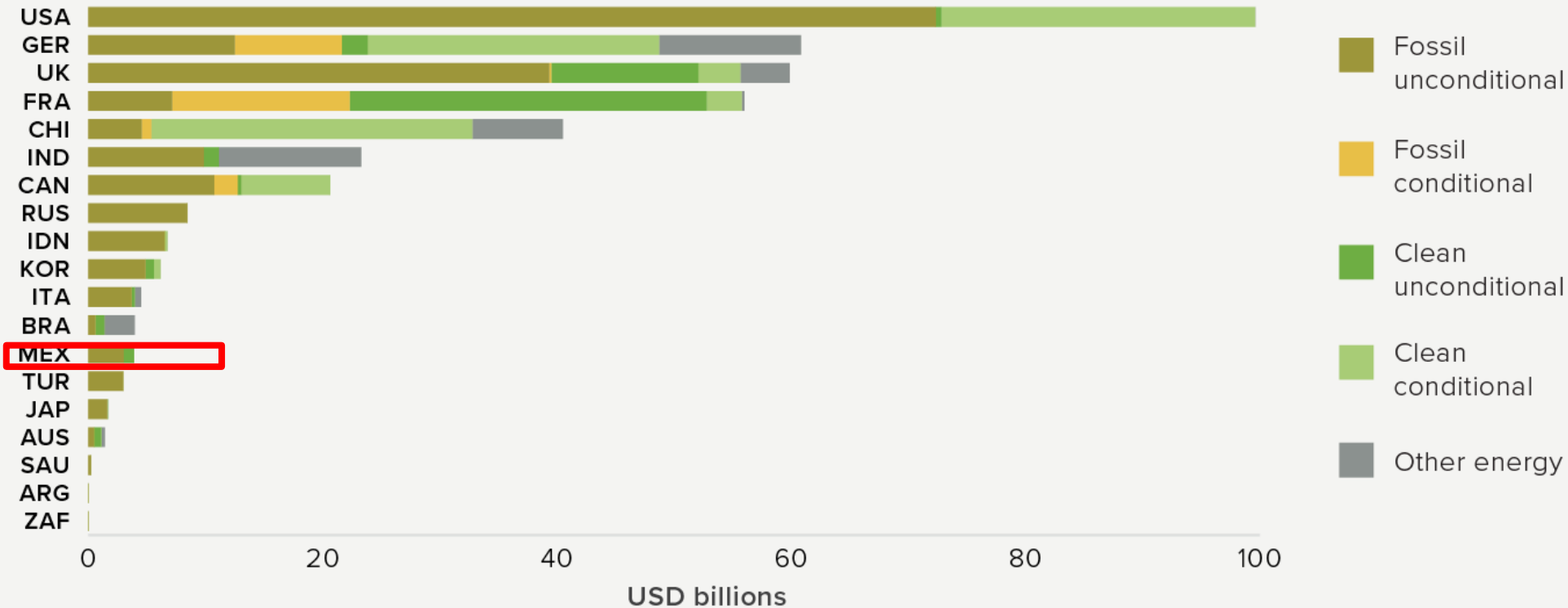
G20 DIRIGE

ESTÍMULO FISCAL A FÓSILES



54% DEL ESTÍMULO FISCAL EN SECTOR ENERGÉTICO DEL G20 SE HA DIRIGIDO A COMBUSTIBLES FÓSILES

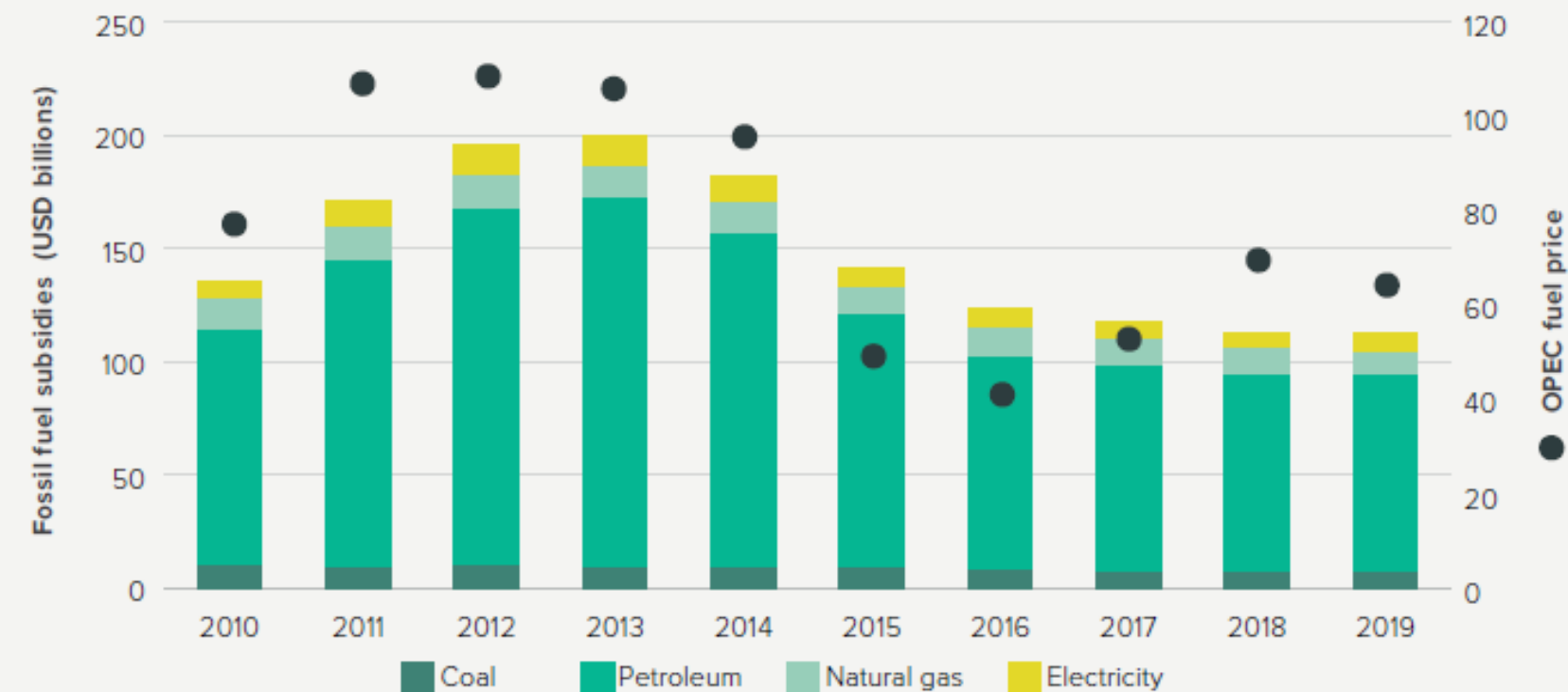
Energy Policy Tracker: G20 fiscal support to energy sector (mid-October 2020)



Sin embargo, 17 países G20 (excepto Arabia Saudita, México y Rusia) brindan apoyo a industrias verdes como incrementar la capacidad de renovables y vehículos eléctricos.

LOS SUBSIDIOS A COMBUSTIBLES FÓSILES SIGUEN AUMENTANDO

G20 fossil fuel subsidies by year



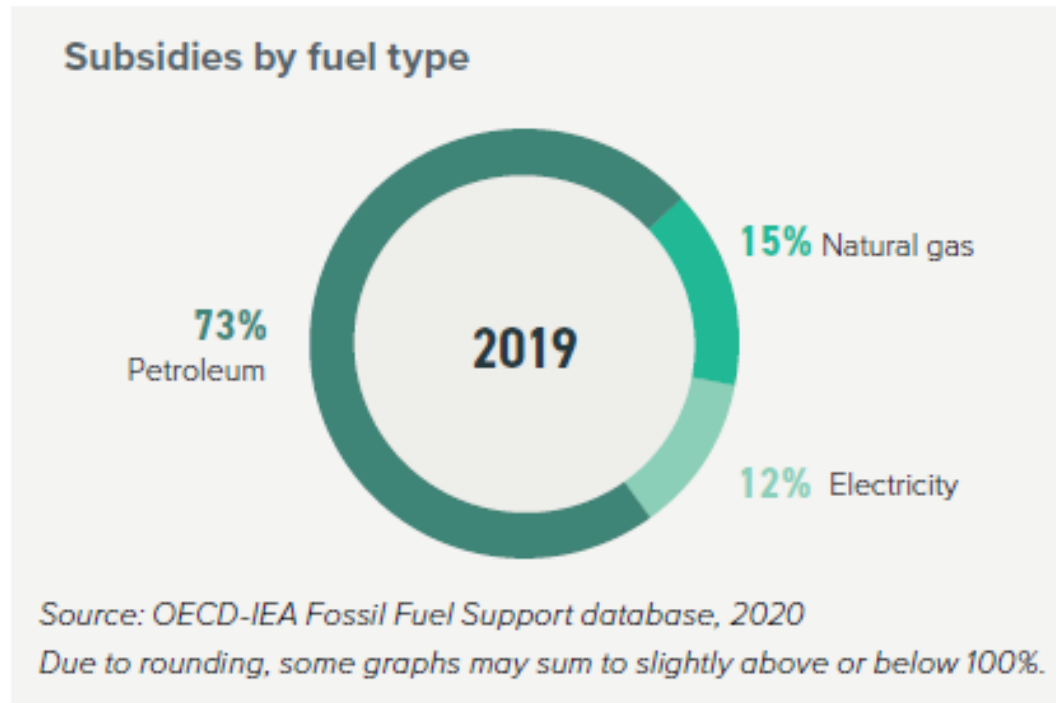
Source: OECD-IEA Fossil Fuel Support database, 2020

- Los países del G20 destinaron **130 billones de dólares para subsidiar** carbón, petróleo y gas en 2019.
- Algunos países están avanzando en reformas para dejar de subsidiar combustibles fósiles.

MEXICO



Fossil Fuel Subsidies by fuel type



- Después de China, México es el país **que más subsidios destina a los combustibles fósiles**
- 12.5bn de dólares: petróleo
- 2.6 bn de dólares: gas natural
- 2 bn de dólares: electricidad de fuentes fósiles
- Anexo 16 del Presupuesto de Egresos de la Federación destina **73% del presupuesto a transporte de gas natural.**



POLÍTICAS FINANCIERAS Y REGULACIONES

		Green financial principles	Enhanced supervisory review, risk disclosure and market discipline	Enhanced capital and liquidity requirements			
Instruments	E.g. Green Finance Taxonomy	Climate risk disclosure requirements	Climate-related risk assessment and climate stress-testing	Liquidity instruments	Lending limits		Differentiated reserve requirements
Objective	General discussion / process of implementation of principles aligning prudential and climate change objectives in the national financial architecture	Disclose the climate-related risks to which financial institutions are exposed	Evaluate the resilience of the financial sector to climate shocks	Mitigate and prevent market illiquidity and maturity mismatch	Limit the concentration of carbon-intensive exposures	Incentivise low carbon-intensive exposures	Limit misaligned incentives and channel credit to green sectors
 Argentina	Yes	●	●	●	●	●	●
 Australia	Yes	●	●	●	●	●	●
 Brazil	Yes	●	●	●	●	●	●
 Canada	Yes	●	●	●	●	●	●
 China	Yes	●	●	●	●	●	●
 European Union	Yes	●	●	●	●	●	●
 France	Yes	●	●	●	●	●	●
 Germany	Yes	●	●	●	●	●	●
 India	No	●	●	●	●	●	●
 Indonesia	Yes	●	●	●	●	●	●
 Italy	Yes	●	●	●	●	●	●
 Japan	Yes	●	●	●	●	●	●
 Mexico	Yes	●	●	●	●	●	●

- Todos los países del G20 **ya tienen un grado de avance** en el diseño de instrumentos para reducir los riesgos del cambio climático en el sistema financiero.
- México: mecanismos voluntarios para evaluar resiliencia del sector financiero al riesgo.

G20

**SEVERAMENTE
AFECTADO POR
CAMBIO CLIMÁTICO**



India | A farmer prepares a drip irrigation line in a field in Kempalinganapura, Karnataka. Photo by Prashanth Vishwanathan/Bloomberg via Getty Images.

G20 NECESITA INVERTIR EN ADAPTACIÓN

	Baseline: 1981–2010	0.6°C	1.5°C	2°C	3°C
 WATER SHORTAGES	% area with increased water scarcity	0	9	15	25
	% time in drought conditions	7	10	13	17
 HEAT AND HEALTH	Heatwave frequency % likelihood	33	74	87	97
	Major heatwave frequency % likelihood	5	28	49	79
	Heatwave duration average annual days	2	6	12	37
 MAIZE	Reduction in crop duration	0	-7	-10	-15
	Damaging hot spell frequency % likelihood	6	12	18	35
	Reduction in rainfall % likelihood	15	16	18	20
 RICE	Reduction in crop duration	0	-5	-7	-12
	Damaging hot spell frequency % likelihood	27	32	35	40
	Reduction in rainfall % likelihood	14	14	15	16
 SOYBEAN	Reduction in crop duration	0	-7	-11	-17
	Damaging hot spell frequency % likelihood	1	2	3	5
	Reduction in rainfall % likelihood	14	13	12	12
 WHEAT	Reduction in crop duration	0	-7	-11	-18
	Damaging hot spell frequency % likelihood	21	28	34	46
	Reduction in rainfall % likelihood	14	14	15	17

- Cada año, **11 mil personas fallecen a causa de cambios meteorológicos** extremos y pierde 130 billones de dólares.
- Australia, Brasil, Francia, Italia, **México** y Turquía estarán expuestos a sequías y escasez de agua.
- Australia, India, **México**, Arabia Saudita y Sudáfrica vivirán más días con temperaturas extremas.
- Se prevé que **el costo de adaptación incrementa** en países en desarrollo.

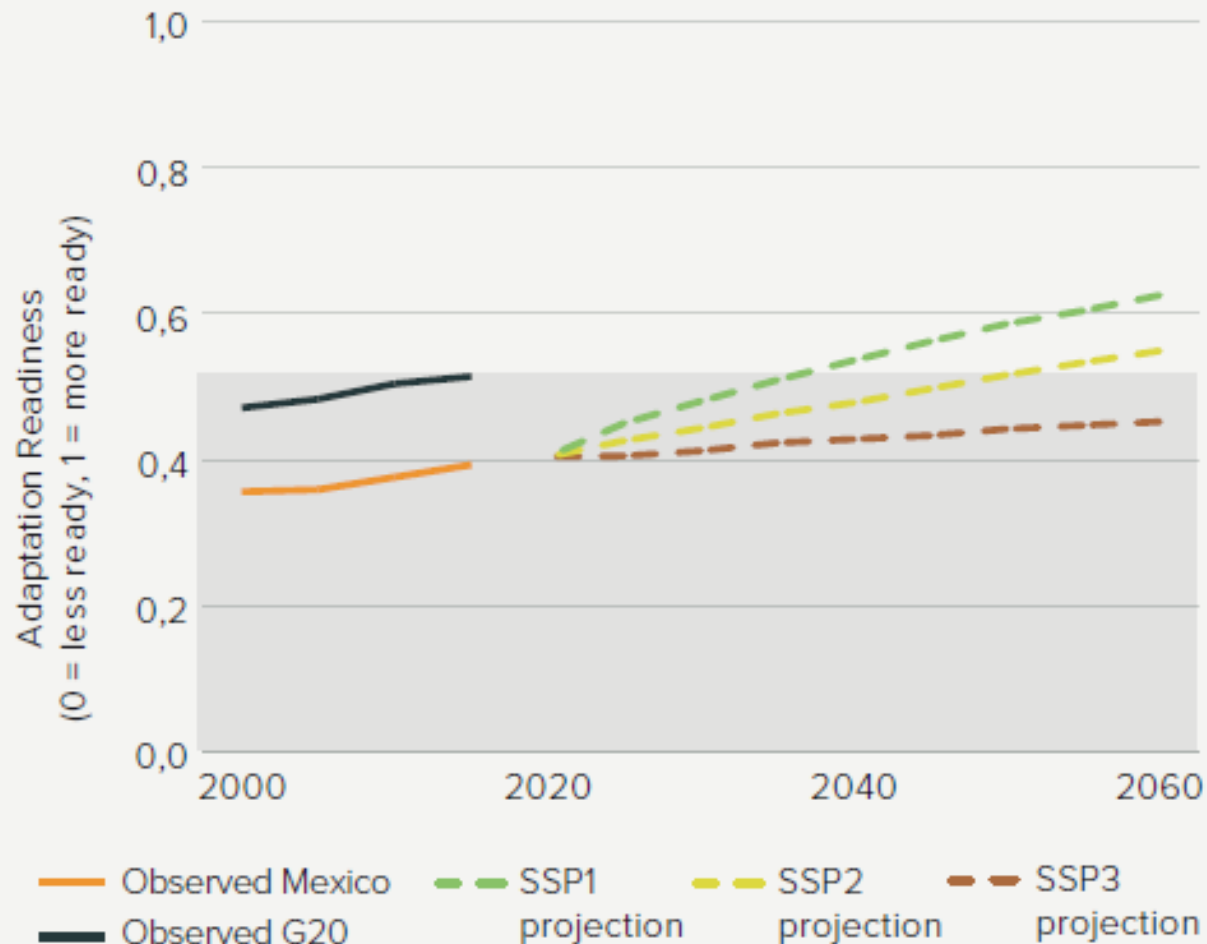
Source: Arnell, 2019

MEXICO



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

Notre Dame Global Adaptation Initiative (ND-Gain) Readiness Index



- 0= poca capacidad para la adaptación
- 1= alta capacidad para adaptación
- Capacidad de respuesta a la adaptación: México se encuentra por debajo del promedio del G20.
- Necesidades: incrementar inversión, fomentar innovación y planes de adaptación.
- ENCC y PECC aún sin darse a conocer.

AÚN HAY POSIBILIDAD DE CAMBIAR EL RUMBO

- Compromisos climáticos ambiciosos de Francia, Reino Unido, Alemania, Unión Europea, China, Sudáfrica, Corea del Sur y Japón.
- Actualización de la NDC de México.
- Rol de gobiernos locales.





¿CUÁLES SON LOS AVANCES, RETOS Y OPORTUNIDADES EN ARGENTINA?

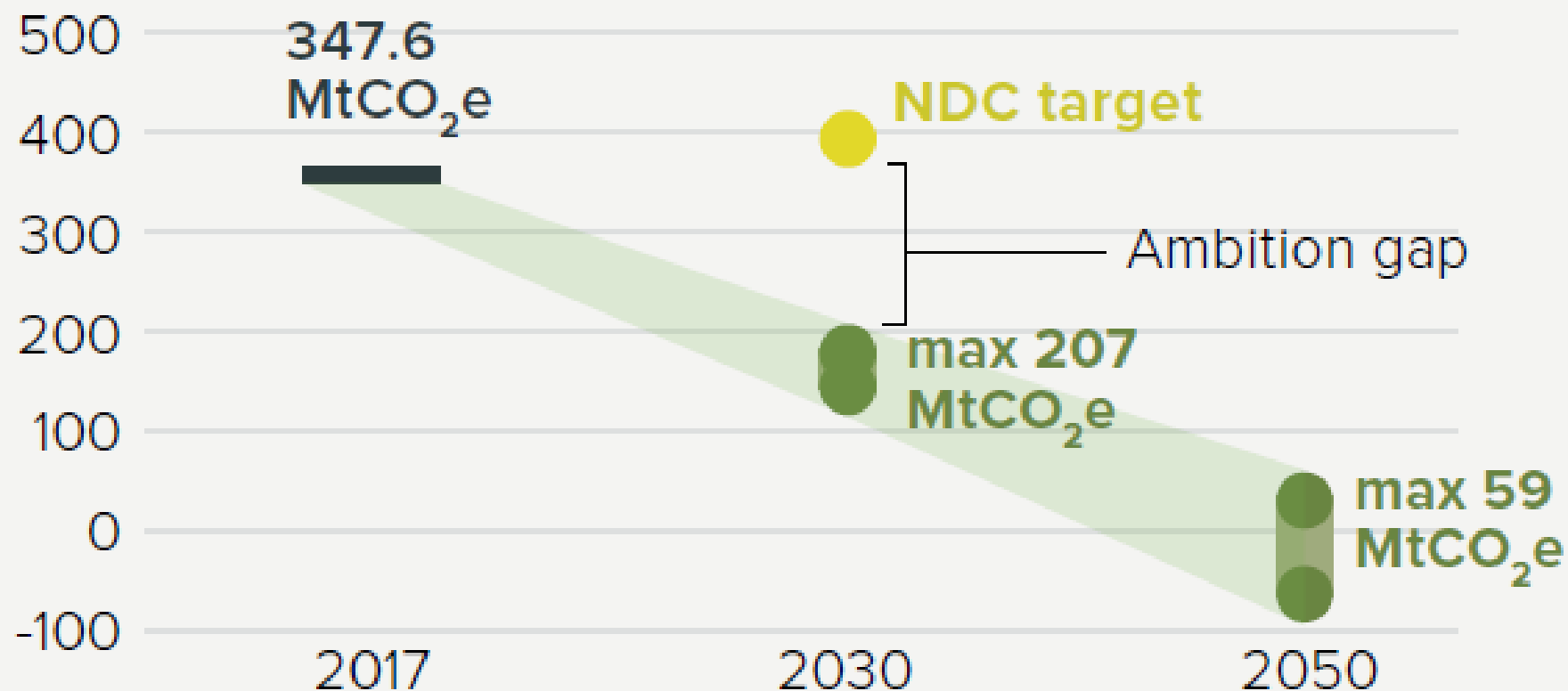
Acción Climática en Argentina

Avances, retrocesos y oportunidades



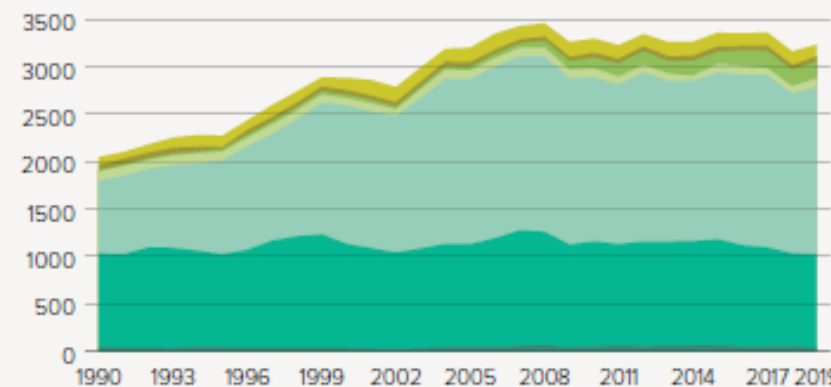
Climate
Transparency

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

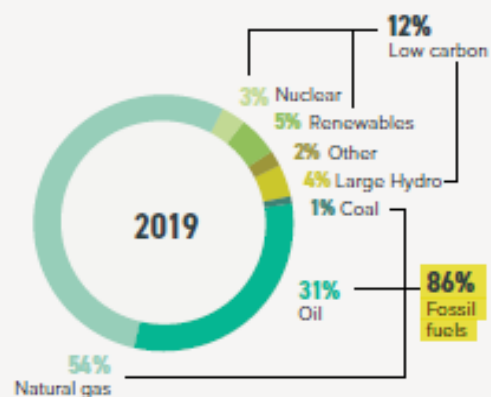


Source: Climate Action Tracker, 2020

Total primary energy supply (PJ)



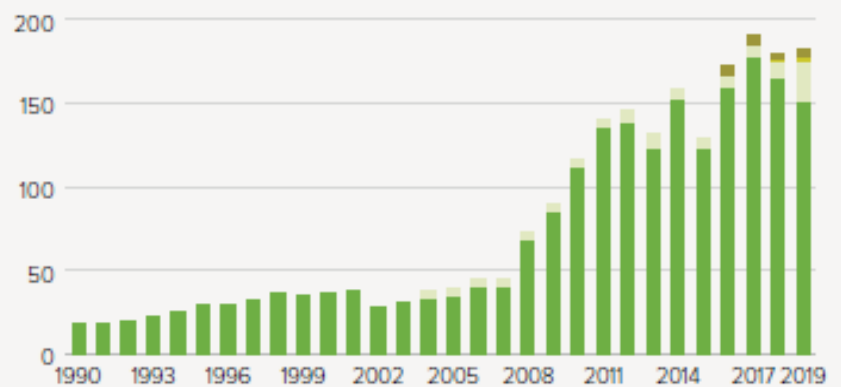
Coal Oil Natural Gas Nuclear Renewables Other (incl Traditional Biomass) Hydro >50MW



Source: Ministerio de Desarrollo Productivo, 2020

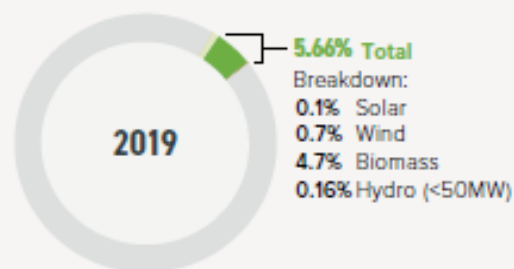
Due to rounding, some graphs may sum to slightly above or below 100%.

Total primary energy supply (TPES) from solar, wind, geothermal and biomass (PJ)



Biomass, excl. traditional biomass Wind Solar Hydro (<50MW)

Solar, wind, geothermal and biomass account for 5.66% of Argentina's energy supply



Source: Ministerio de Desarrollo Productivo, 2020

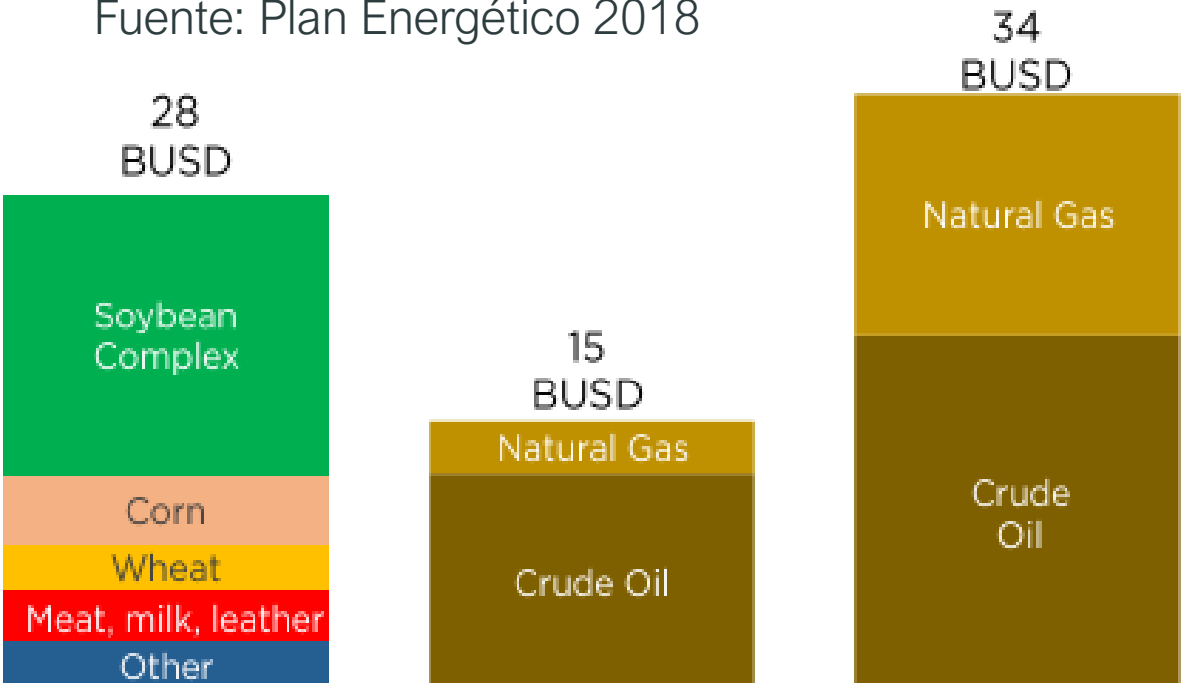
Large hydropower and solid fuel biomass in residential use are not reflected due to their negative environmental and social impacts.
Due to rounding, some graphs may sum to slightly above or below 100%.

1. Necesitamos exportar más

- Exportar es clave para obtener las divisas necesarias para financiar el crecimiento económico, la suba del salario real y la baja de la pobreza y la desigualdad.
- Exportar tiene muchas externalidades: amplía escala (mercado muchísimo más grande), genera aprendizajes en firmas y trabajadores que redundan en mejoras productivas.
- Desde 2011 Argentina no crece en forma sostenida. Desde 2011 Argentina tiene exportaciones estancadas.

Exportaciones al 2027

Fuente: Plan Energético 2018



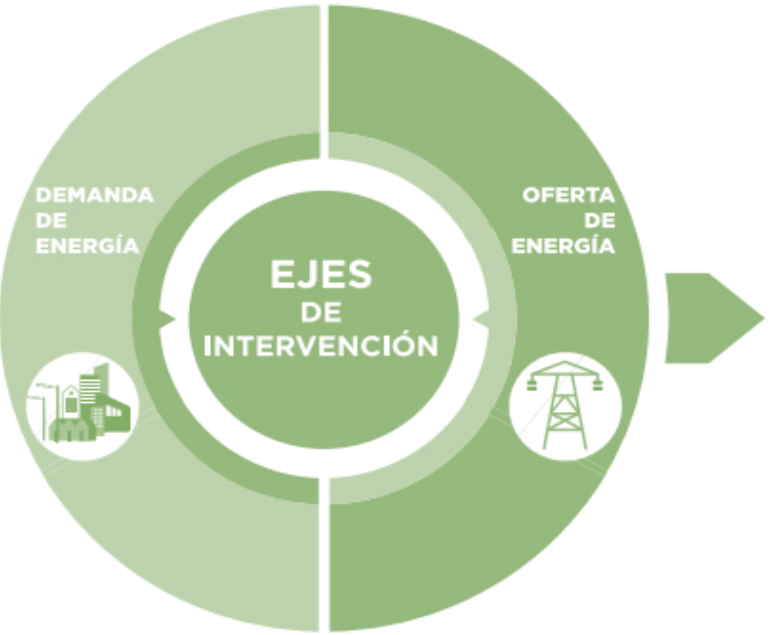
¹ The net negative impact on exports is expected to be small since the measure will likely be offset by an increase in the productive capacity from last year’s strong investment in export industries, a rebound of agricultural exports after the drought, and an expected increase in energy exports as production in the Vaca Muerta basin picks up.

LA REACTIVACIÓN FÓSIL 2020



RIESGO: EL GAS COMO SOLUCIÓN CLIMÁTICA

PLAN DE ACCIÓN



MEDIDAS DE MITIGACIÓN

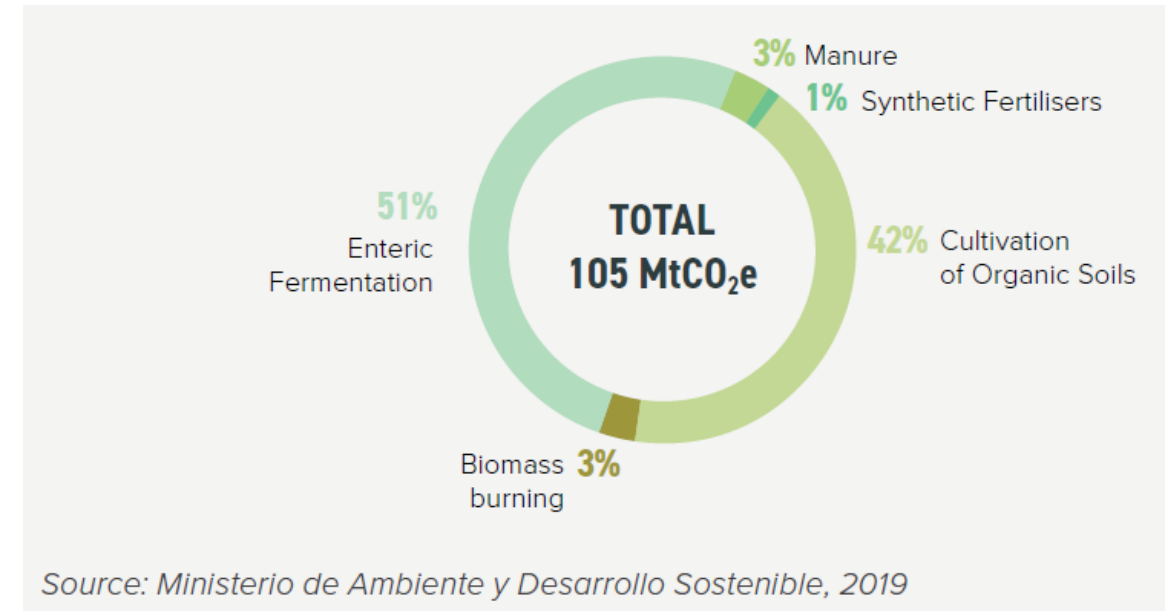
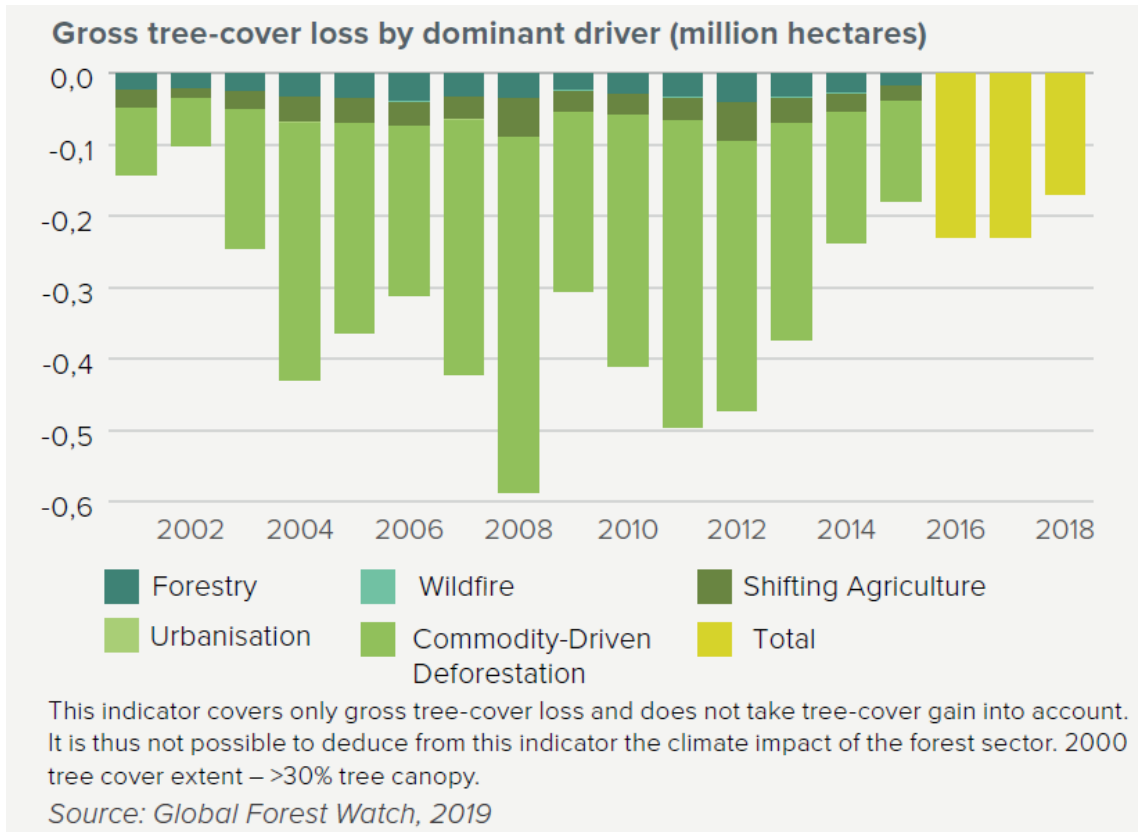
- EFICIENCIA ENERGÉTICA**
 - EFICIENCIA EN ELECTRODOMÉSTICOS
 - CALEFONES EFICIENTES
 - BOMBAS DE CALOR
 - ECONOMIZADORES DE AGUA
 - ALUMBRADO PÚBLICO
 - ILUMINACIÓN RESIDENCIAL
 - ENVOLVENTE TÉRMICA EN EDIFICIOS
- ENERGÍA RENOVABLE**
 - CALEFONES SOLARES
 - GENERACIÓN ELÉCTRICA A PARTIR DE FUENTES RENOVABLES CONECTADAS A LA RED
 - GENERACIÓN ELÉCTRICA DISTRIBUIDA
 - GENERACIÓN ELÉCTRICA AISLADA DE LA RED
- COMBUSTIBLES**
 - CORTE CON BIOCOMBUSTIBLES
- GENERACIÓN A GRAN ESCALA**
 - NUCLEAR
 - HIDROELÉCTRICA
 - SUSTITUCIÓN DE COMBUSTIBLES FÓSILES POR GAS NATURAL EN GENERACIÓN ELÉCTRICA
 - MEJORA EN LA EFICIENCIA DE CENTRALES TÉRMICAS

- MONITOREO
- REVISIÓN CONTINUA
- FINANCIAMIENTO

MEDIDAS DE ADAPTACIÓN A DESARROLLAR EN 2018

MEDIANTE PROCESO PARTICIPATIVO
GABINETE NACIONAL DE CAMBIO CLIMÁTICO • GOBIERNOS PROVINCIALES • ONG • ACADEMIA • PRIVADOS

EL USO DE LA TIERRA



Muchas Gracias

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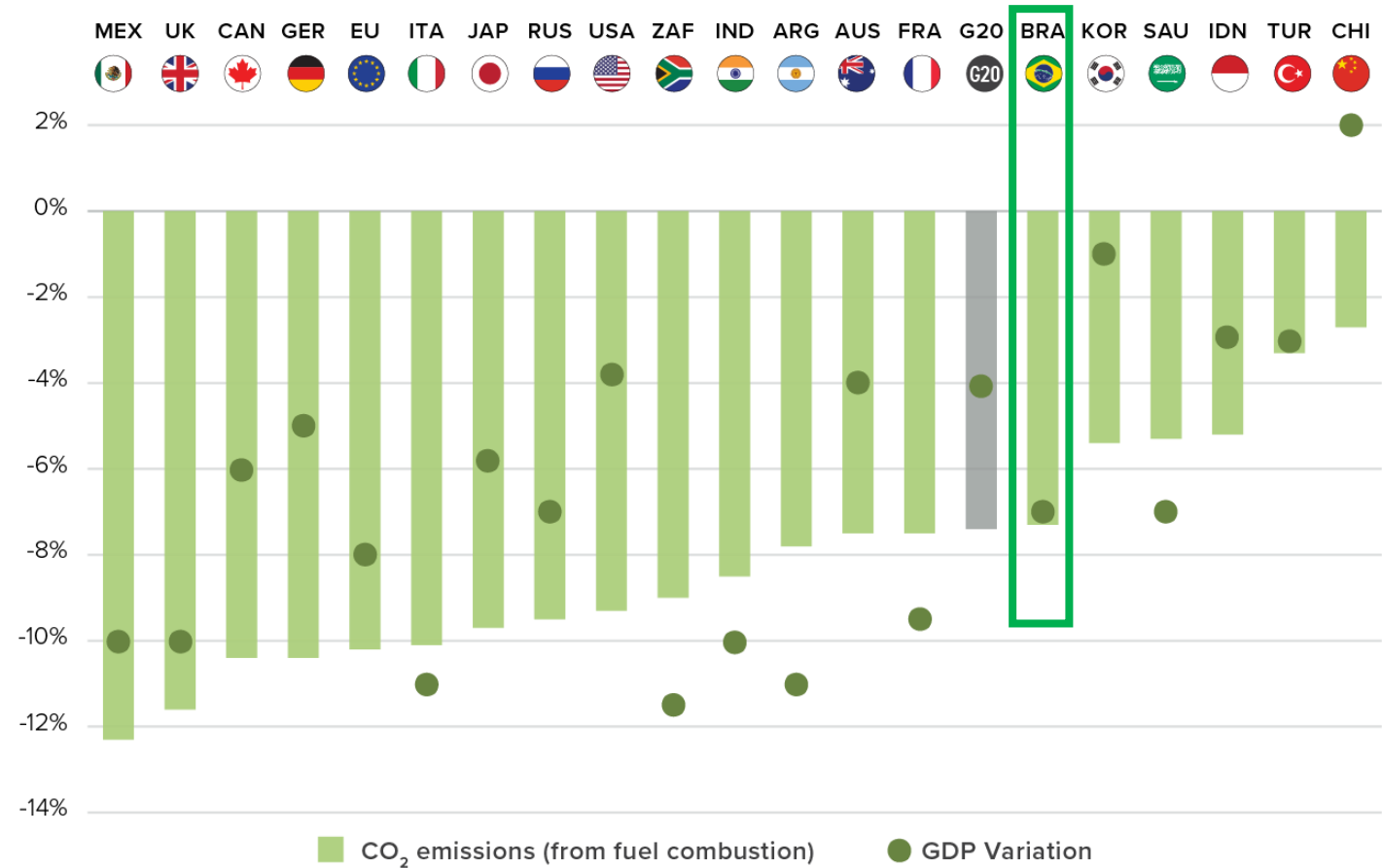
¿CUÁLES SON LOS AVANCES, RETOS Y OPORTUNIDADES EN BRASIL?



PART 1: G20 RESPONSES TO THE COVID-19 CRISIS

CO₂
EMISSIONS
PROJECTED
TO DECREASE
BY 7.5% IN
2020

Projected % change in G20 GDP and energy-related CO₂ emissions (2020)

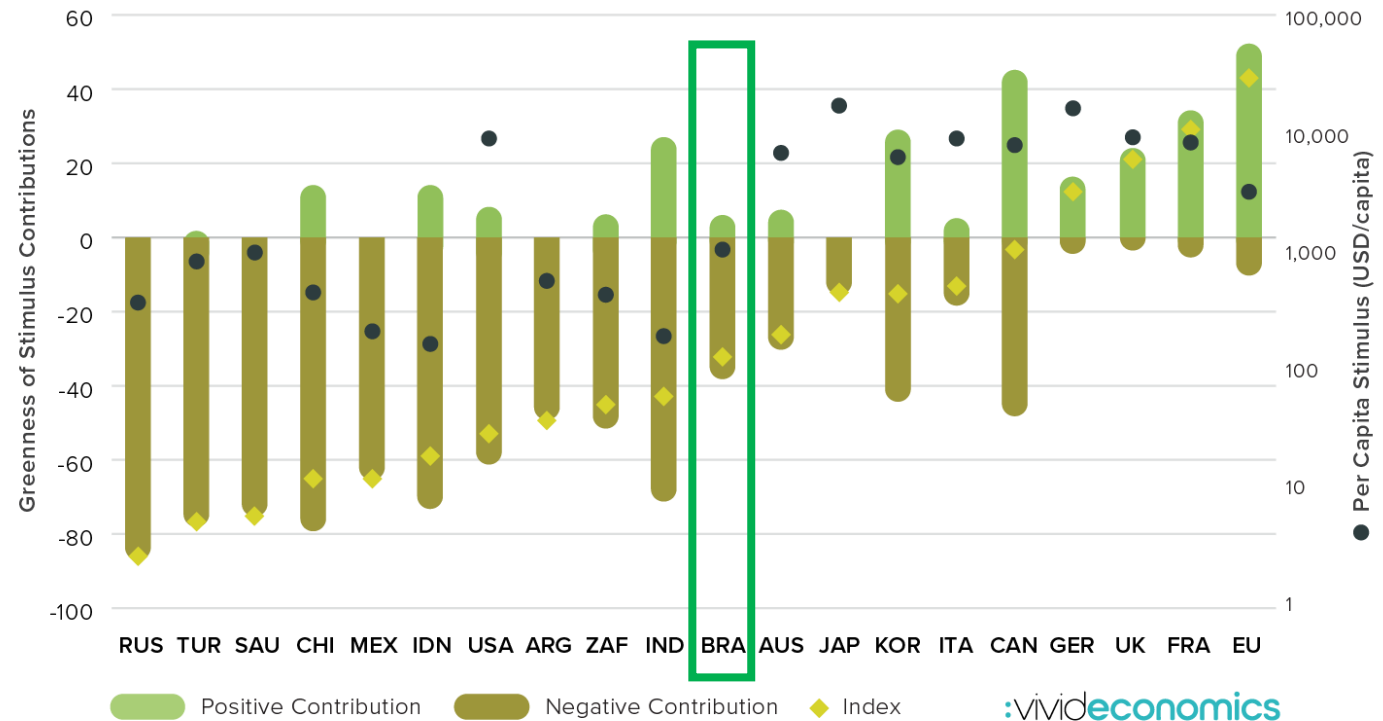


Source: Enerdata, 2020

ONLY 4 G20 COUNTRIES HAVE MOSTLY GREEN STIMULUS RESPONSES

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

Greenness of Stimulus Index (October 2020)





PART 2: STOCKTAKE OF G20 CLIMATE ACTION

G20 NDC UPDATES

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



RECOMMENDATIONS FROM CLIMATE TRANSPARENCY'S NDC TRANSPARENCY CHECK TO BRAZIL

- 1 Clarify if revisions in the National Inventory will affect absolute emission targets
- 2 Explicitly mention the length of the time frame or the period of implementation
- 3 Provide information on institutional arrangements for developing and implementing the NDCs, incl. consultation processes, public participation, and engagement with local communities and indigenous peoples, in a gender-responsive manner.

The NDC Transparency Check has been developed in response to Paris Agreement decision (1/CP.21) and the Annex to decision 4/CMA.1. While the Annex is only binding from the second NDC onwards, countries are “strongly encouraged” to apply it to updated NDCs, due in 2020.



COMPARING G20 CLIMATE ACTION: ADAPTATION

G20 MEMBERS ARE VULNERABLE TO CLIMATE CHANGE AND NEED TO ADAPT

1.5°C BENCHMARKS FOR ADAPTING TO GLOBAL WARMING



1.5°C compatible mitigation and adaptation actions will require strengthened global-to-local financial architecture that enables **greater access to finance and technology**.



While **adaptation finance** has increased quantitatively, significant further expansion would be needed to adapt to 1.5°C.



Sustainable development strategies can enable transformational adaptation for a 1.5°C warmer world.

Source: Own evaluation based on IPCC SR15

BRAZIL



VULNERABLE TO CLIMATE CHANGE

Brazil is vulnerable to climate change and adaptation actions are needed.



HIGH COST OF EXTREME WEATHER

On average, 145 fatalities and almost USD 1.72bn losses occur yearly due to extreme weather events.



SEVERE CLIMATE EVENTS

With global warming, society and its supporting sectors are increasingly exposed to severe impacts, such as droughts.

Climate Risk Index

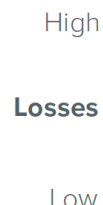
Impacts of extreme weather events in terms of fatalities and economic losses that occurred. All numbers are averages (1999-2018).

Annual weather-related fatalities



**145
DEATHS**

**0.08
PER 100,000
INHABITANTS**



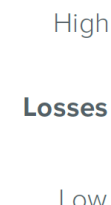
**RANKING
16th
IN THE G20**

Annual average losses (USD mn PPP)



1,718

**0.06
PER UNIT
GDP (%)**



**RANKING
16th
IN THE G20**

Source: Based on Germanwatch, 2019

Source: Based on Germanwatch, 2019



COMPARING G20 CLIMATE ACTION: MITIGATION

G20 COUNTRIES NEED TO MITIGATE EMISSIONS TO LIMIT GLOBAL WARMING

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



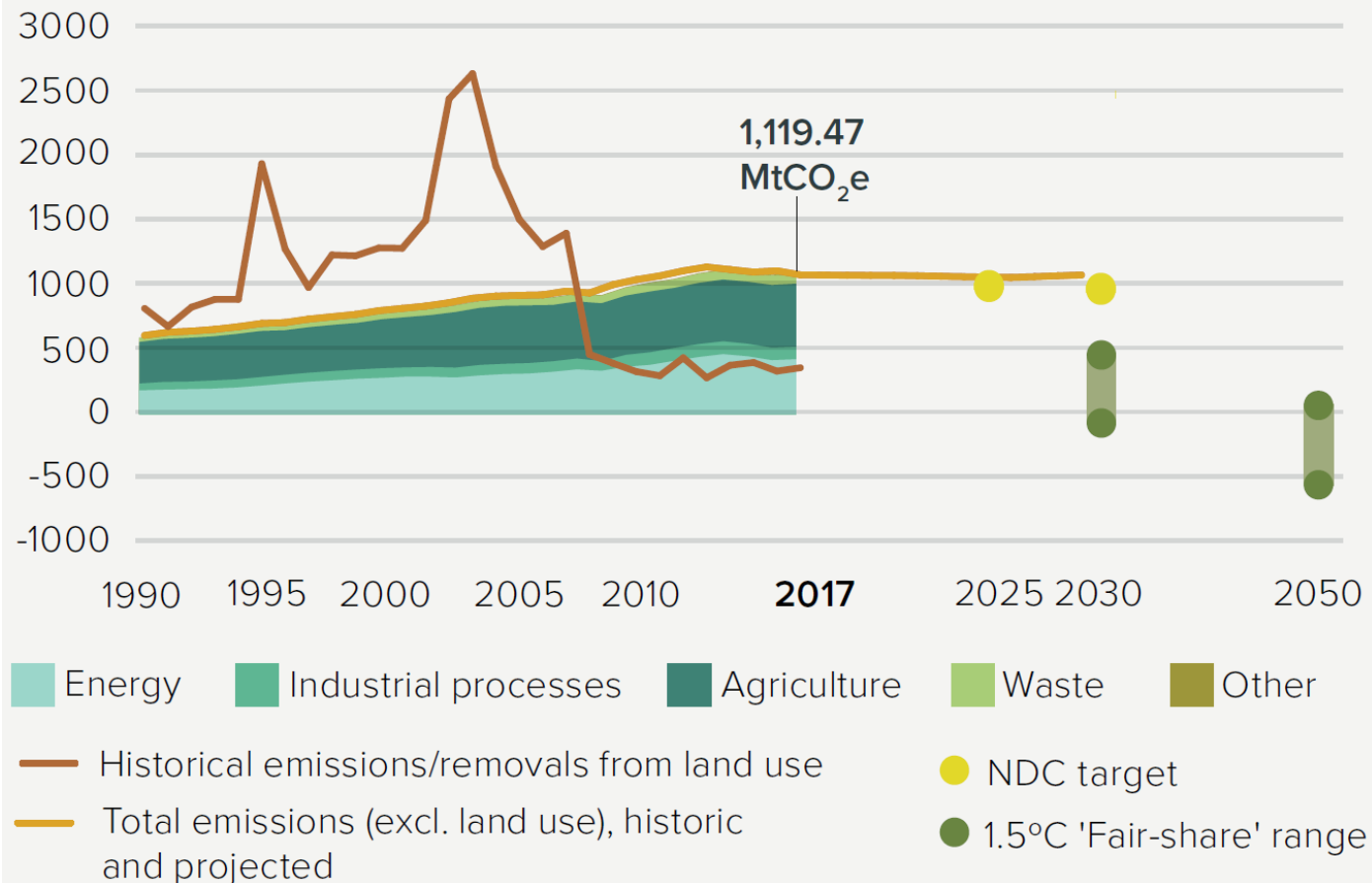
The 2015 **NDCs** would lead to **2.7°C** or higher global temperature increases

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

BRAZIL

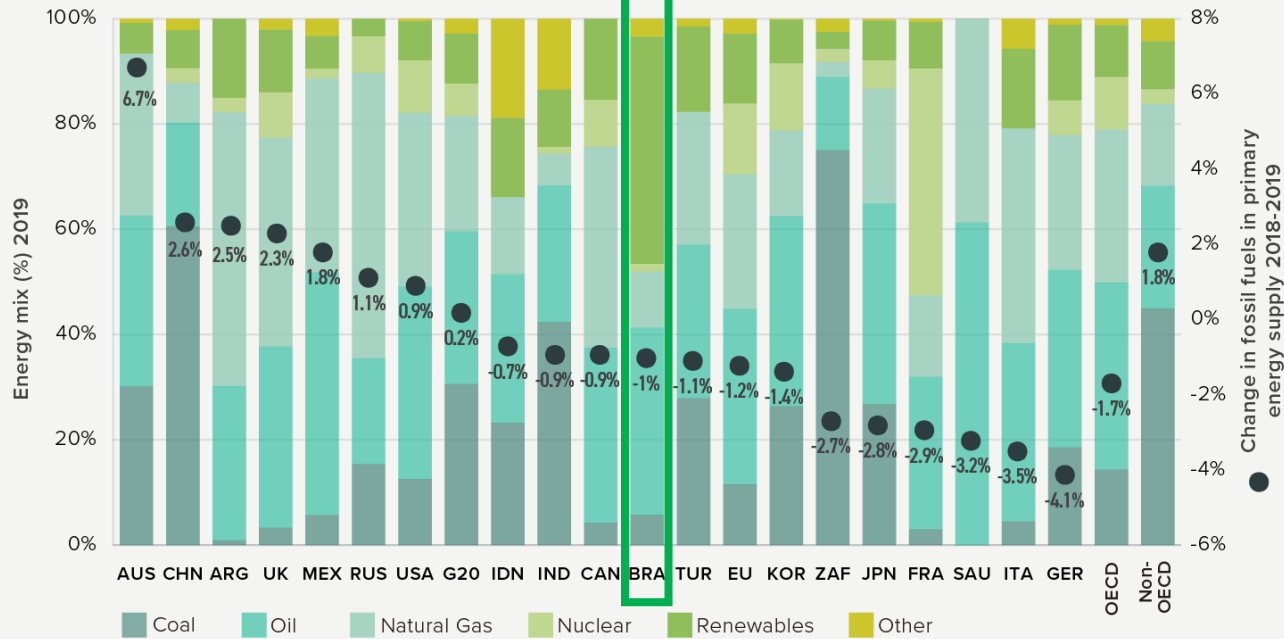
Total GHG emissions across sectors (MtCO₂e/year)



FOSSIL FUELS STILL 81.5% OF G20 PRIMARY ENERGY

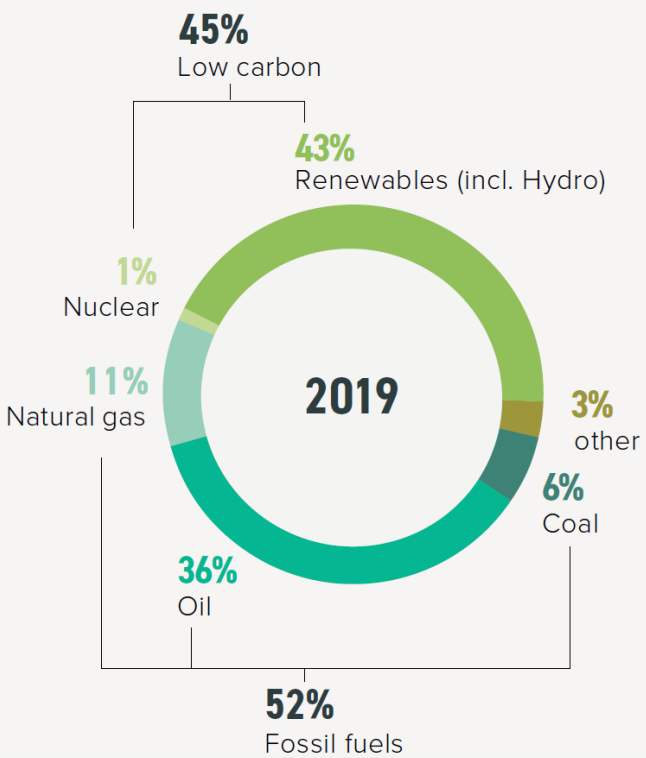
COAL DECREASED BY 2% IN G20 BUT MANY COUNTRIES SWITCHING TO OIL & GAS INSTEAD OF RENEWABLES

Energy mix in G20 countries (2019)



Source: Enerdata, 2020

Energy mix in Brazil in 2019



G20 MEMBERS ARE MAKING PROGRESS IN SOME SECTORS

ALL SECTORS NEED TO BE DECARBONISED TO MEET THE PARIS AGREEMENT MITIGATION GOAL



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%**

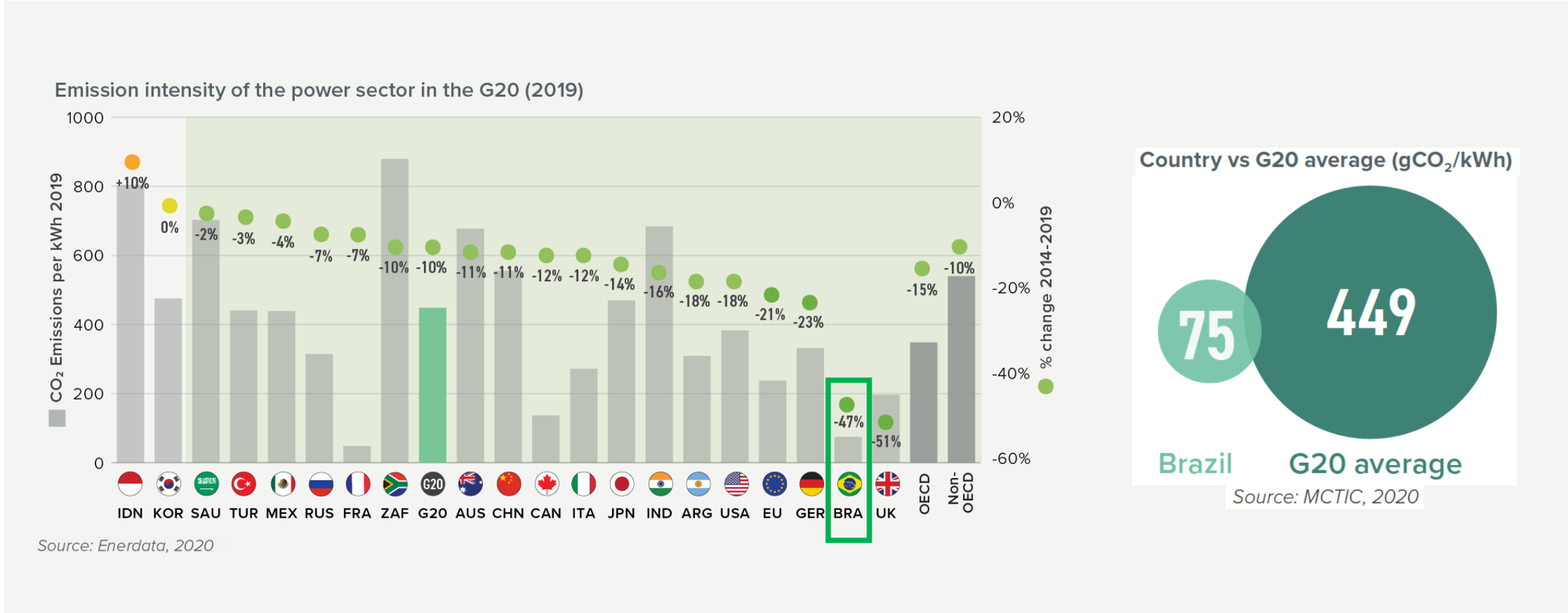
2019 STICKING POINTS

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%**

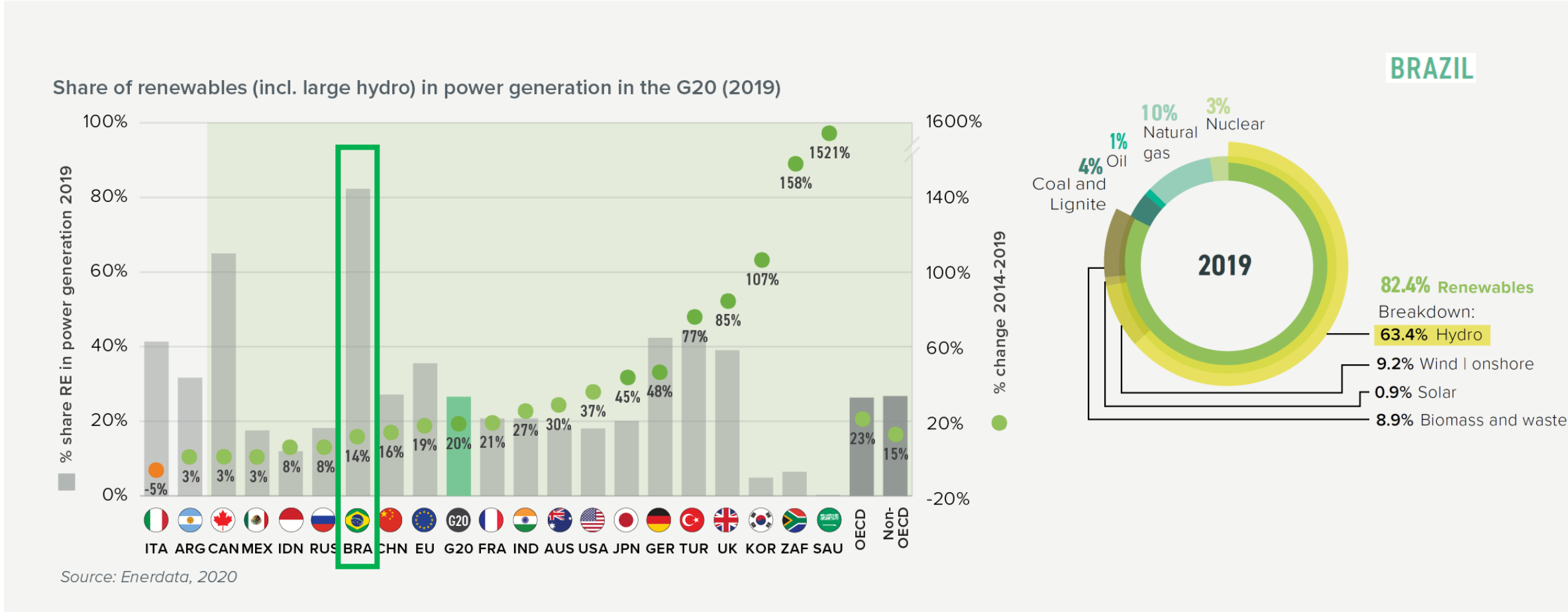
G20 EMISSION INTENSITY OF THE POWER SECTOR 2019

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



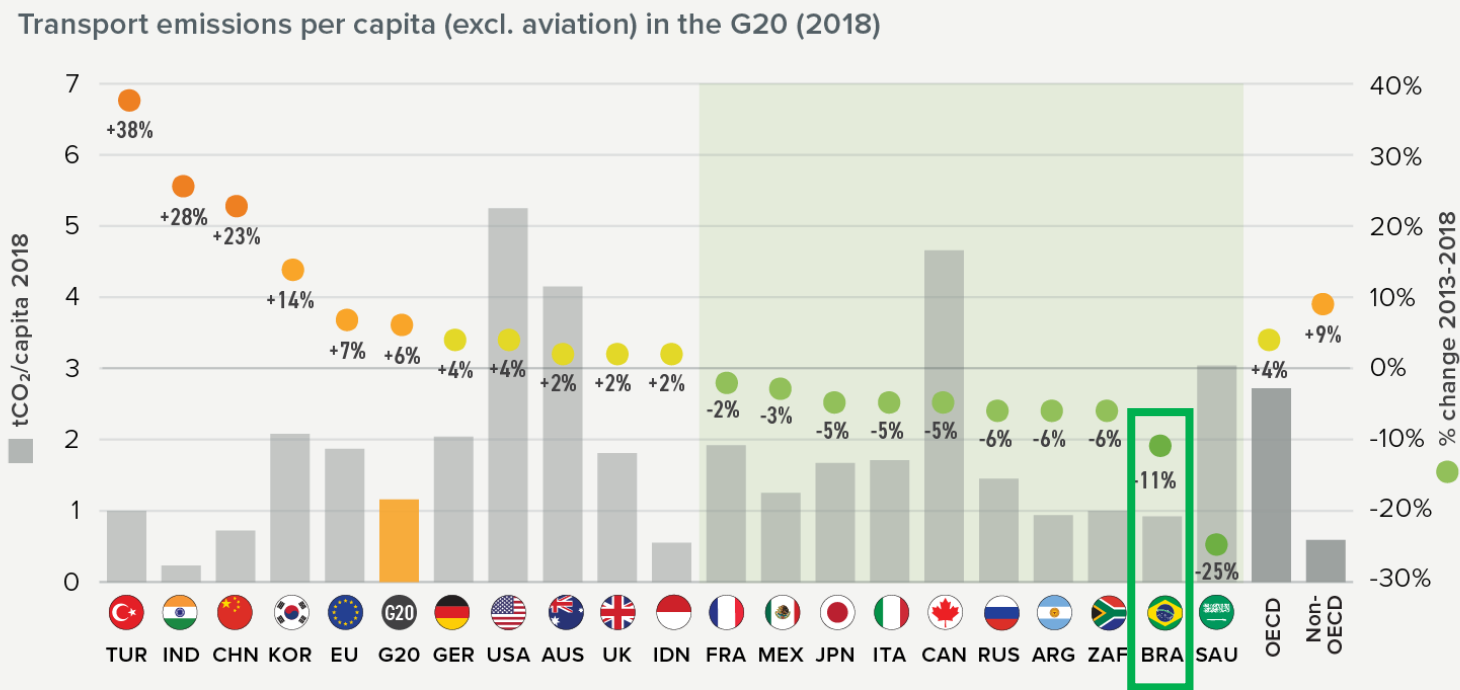
SHARE OF RENEWABLES IN POWER GENERATION 2019

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

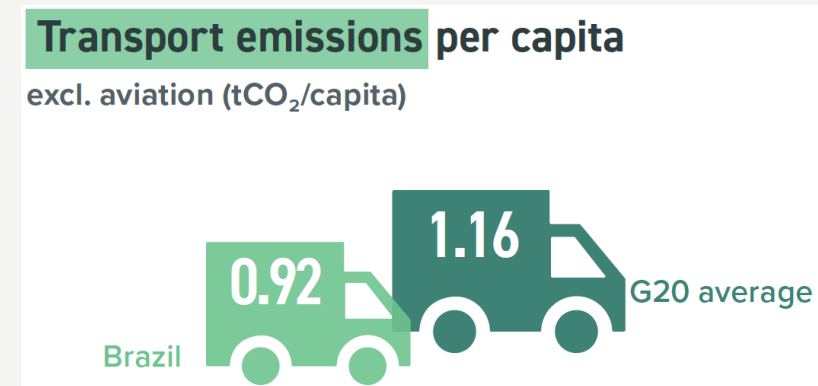


G20 PER CAPITA TRANSPORT EMISSIONS 2018

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



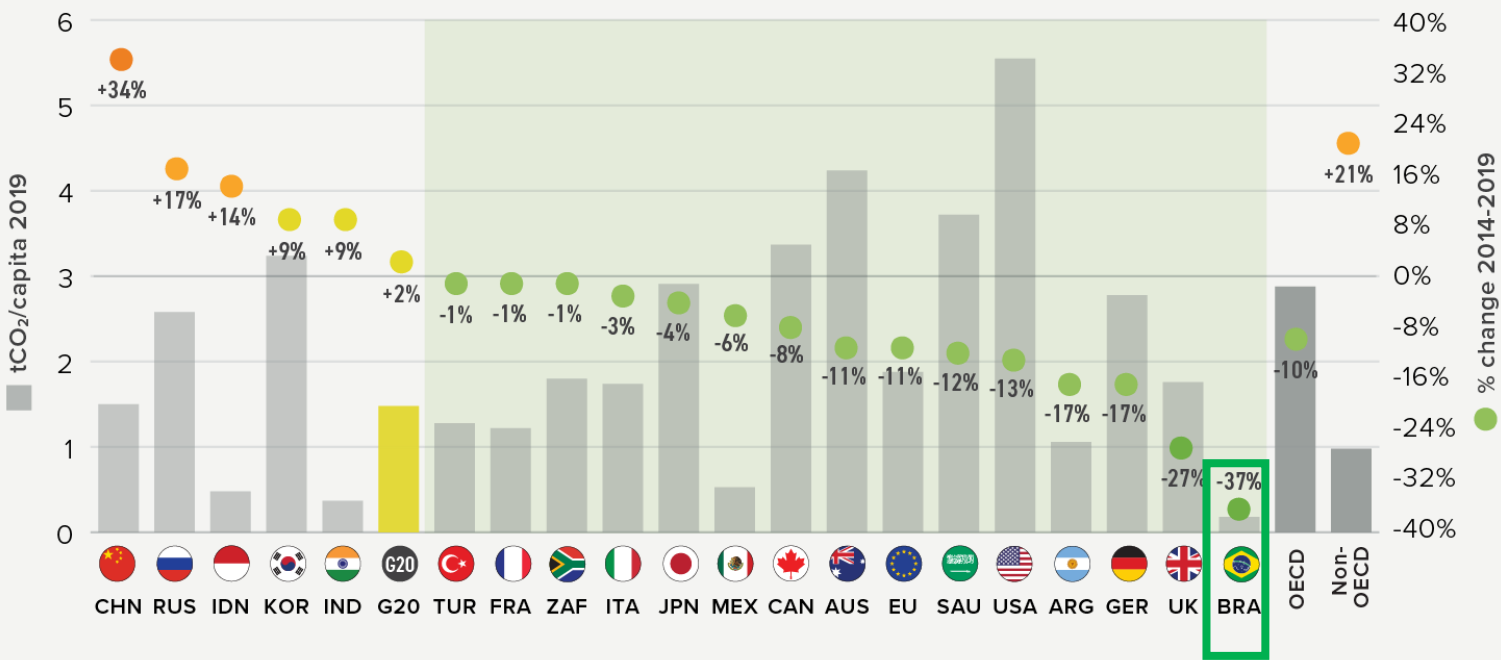
Sources: Enerdata, 2020; The World Bank, 2019



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)



Source: Enerdata, 2020

Building emissions per capita
(incl. indirect emissions) (tCO₂/capita)

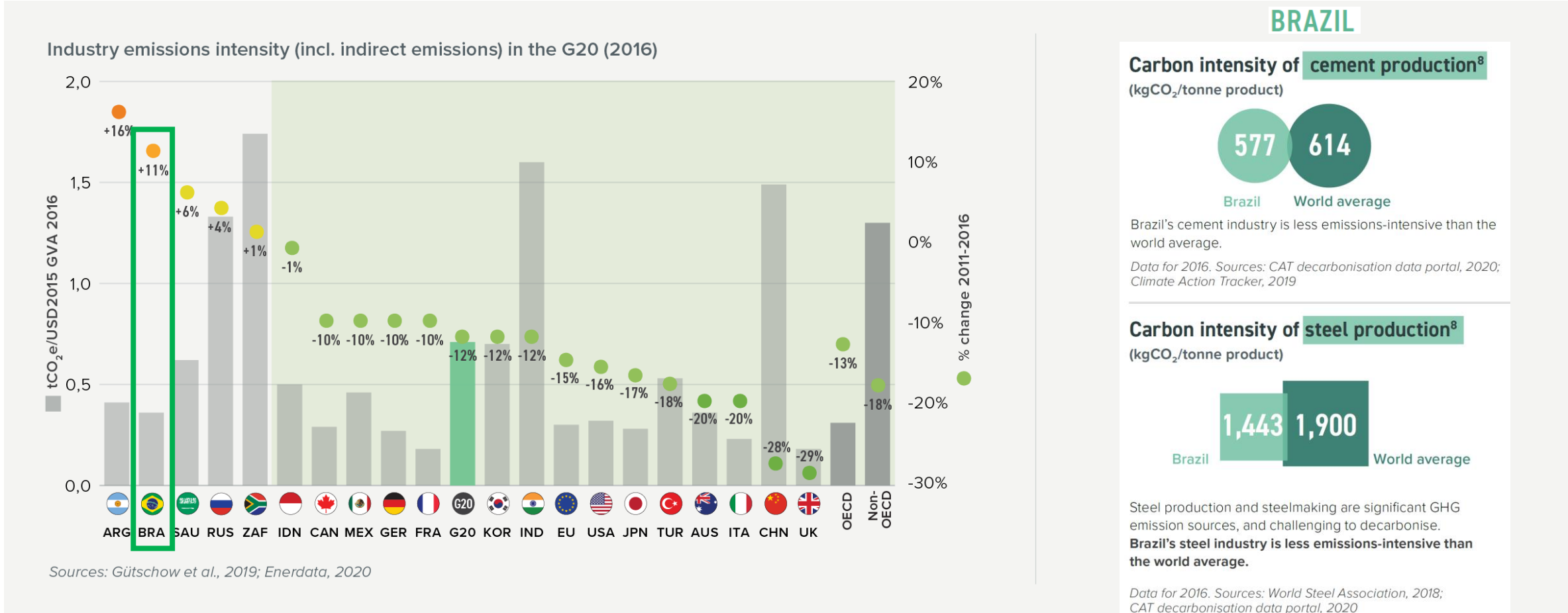
0.18
Brazil



1.48
G20 average

G20 EMISSIONS INTENSITY OF INDUSTRY 2016

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



AGRICULTURE SECTOR

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

1.5°C BENCHMARKS TO LIMIT GLOBAL WARMING



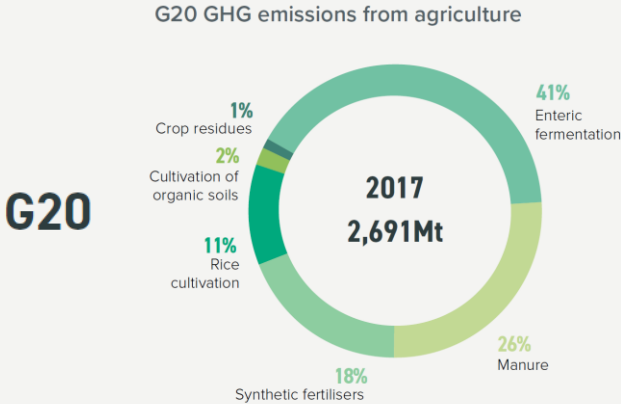
Net deforestation needs to be stopped by 2025, with forests providing net CO₂ removals by 2030.



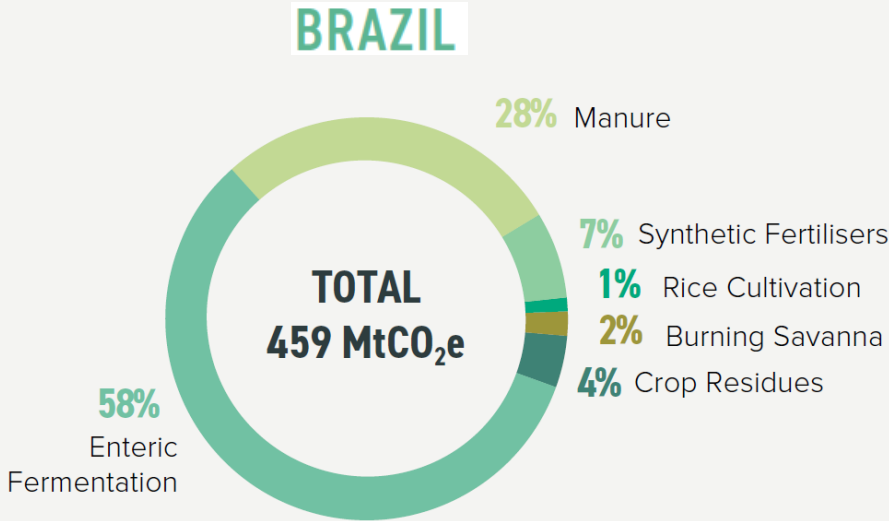
Emissions from forestry and other land use must be reduced to 95% below 2010 levels by 2030.



Methane emissions (mainly enteric fermentation) need to decline by 10% by 2030 and by 35% by 2050 (from 2010 levels). Nitrous oxide emissions (mainly from fertilisers and manure) need to be reduced by 10% by 2030 and by 20% by 2050 (from 2010 levels).



Source: FAO STAT, 2019



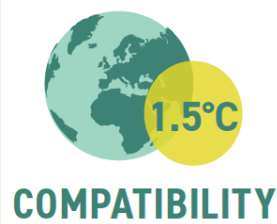
Data for 2017. Source: FAO, 2019

LAND USE SECTOR

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



In order to stay within the 1.5°C limit, Brazil needs to make the land use and forest sector a net sink of emissions, e.g. **by halting the deforestation of the Amazonian rainforest, fighting illegal logging, and restoring destroyed forest areas.**

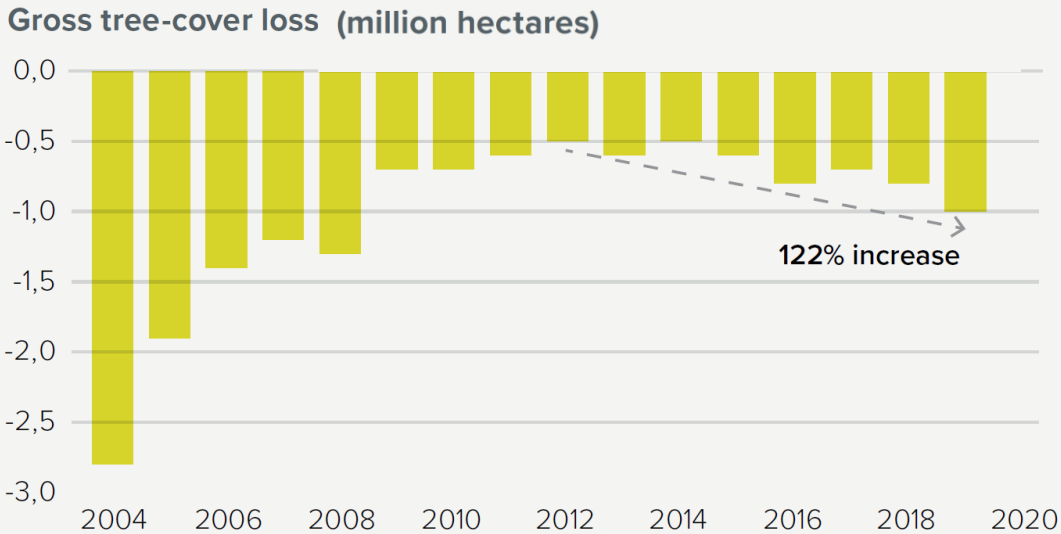


Global deforestation needs to be halted and changed to net CO₂ removals by around 2030.

Source: Rogelj et al., 2018

BRAZIL

Global tree-cover loss



This indicator covers only gross tree-cover loss and does not take tree-cover gain into account. It is thus not possible to deduce from this indicator the climate impact of the forest sector. 2000 tree cover extent – >30% tree canopy.

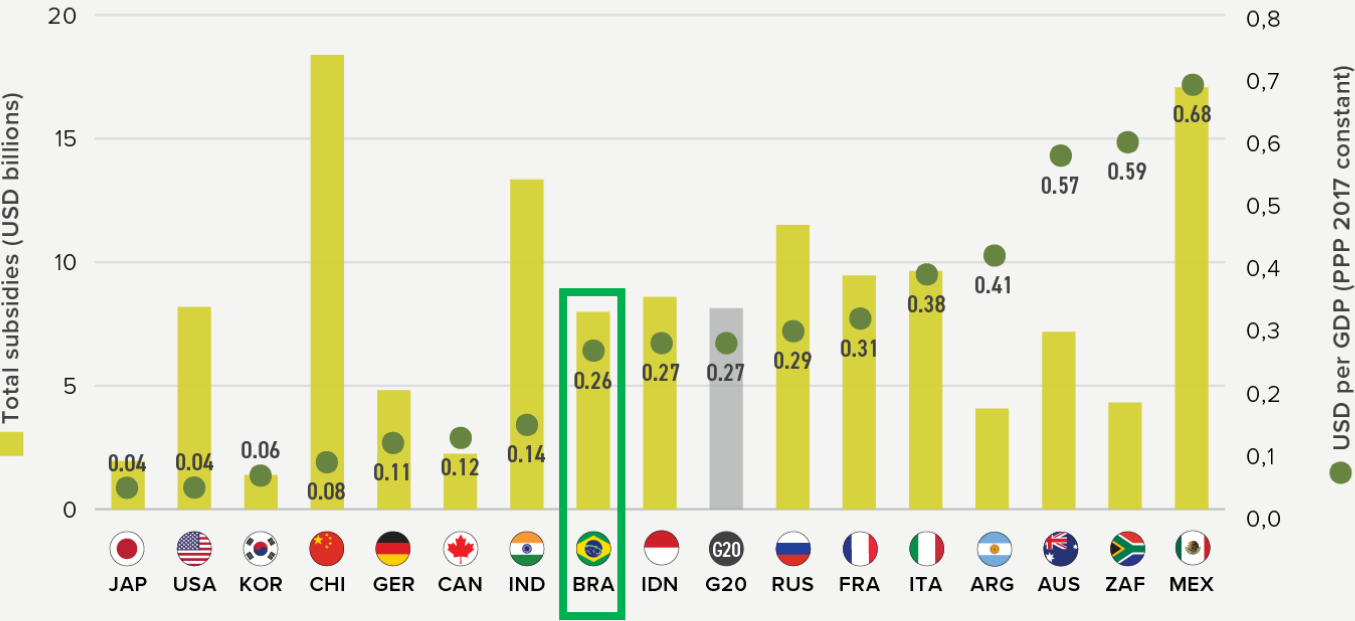


COMPARING G20 CLIMATE ACTION: FINANCE

FISCAL POLICIES

G20 FOSSIL FUEL SUBSIDIES IN 2019

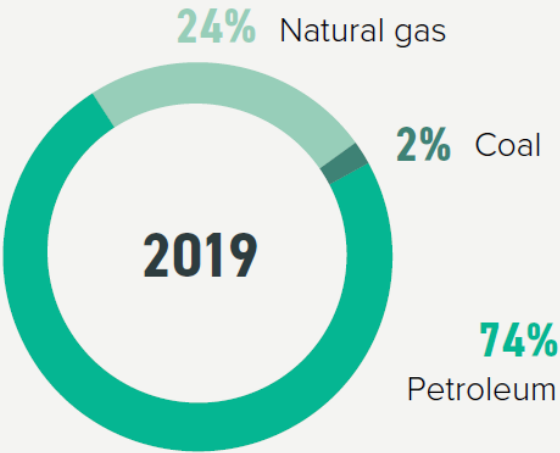
G20 fossil fuel and electricity subsidies (2019)



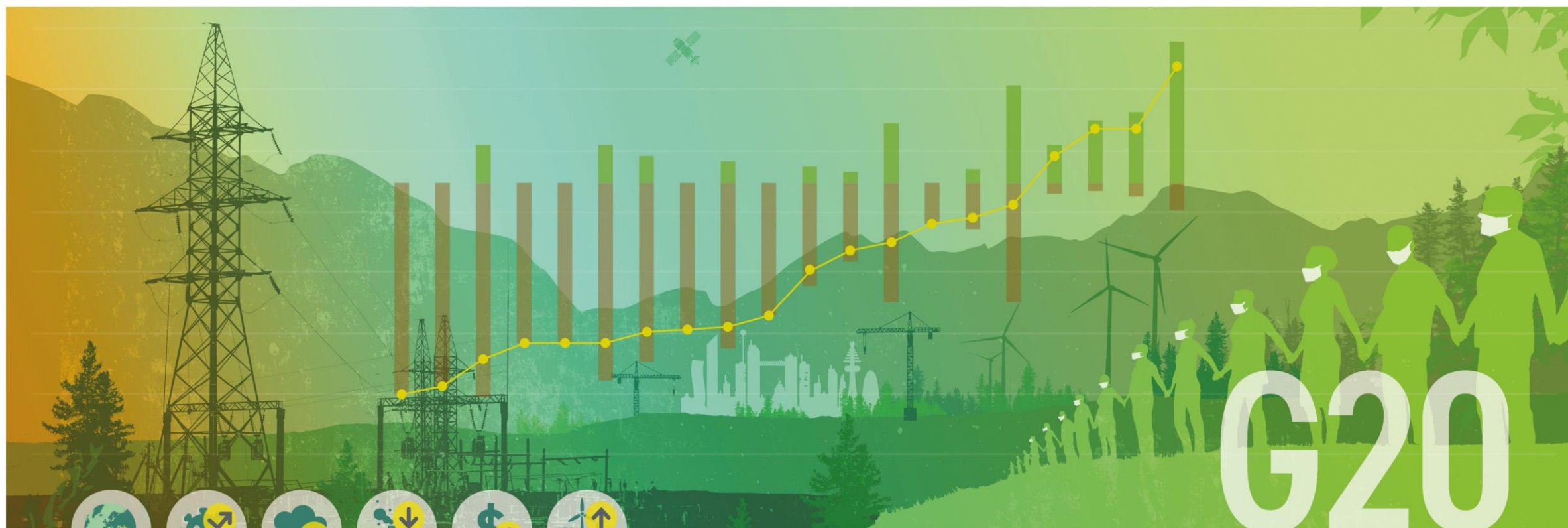
Source: OECD-IEA Fossil Fuel Support database, 2020

BRAZIL

Subsidies by fuel type



Source: OECD-IEA Fossil Fuel Support database, 2020



THANK YOU

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

WILLIAM WILLS
CENTROCLIMA/COPPE/UFRJ

NDC TRANSPARENCY CHECK

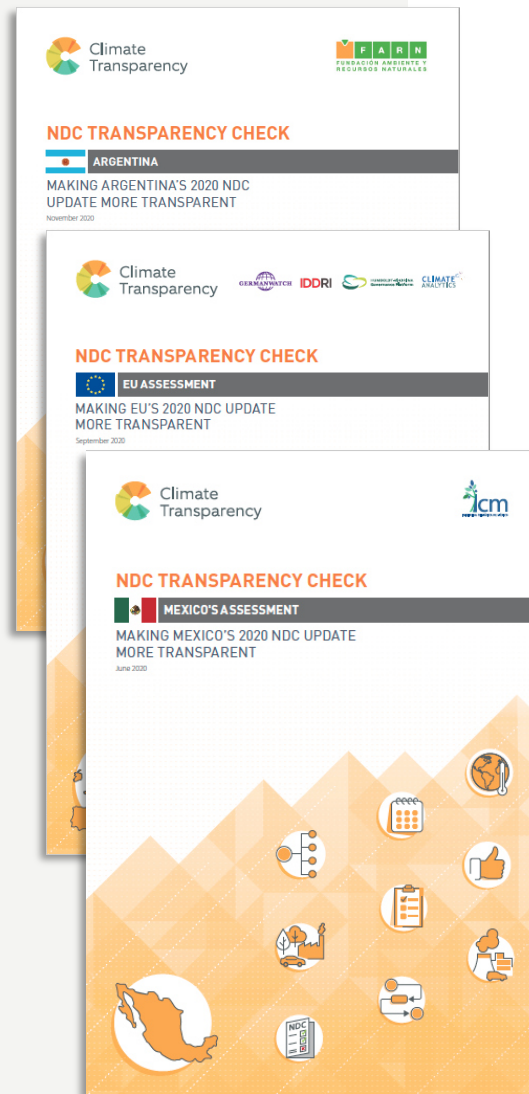
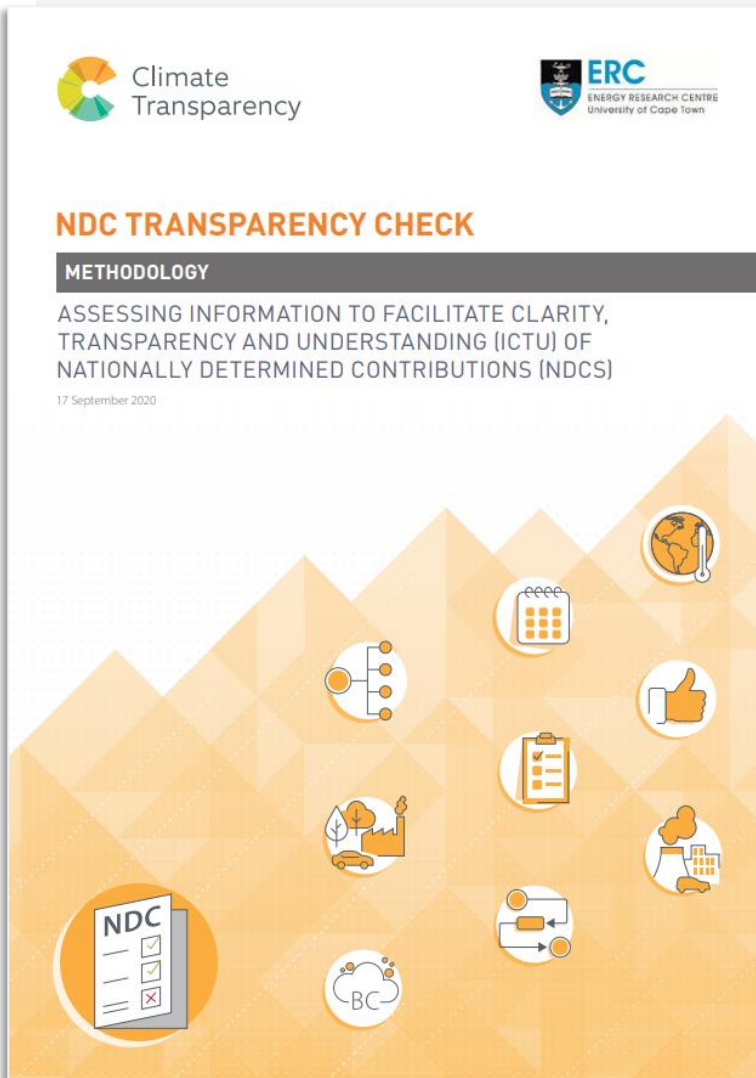
Improving transparency of NDCs through better ICTU



Climate Transparency / University of Cape Town

Andrew Marquard

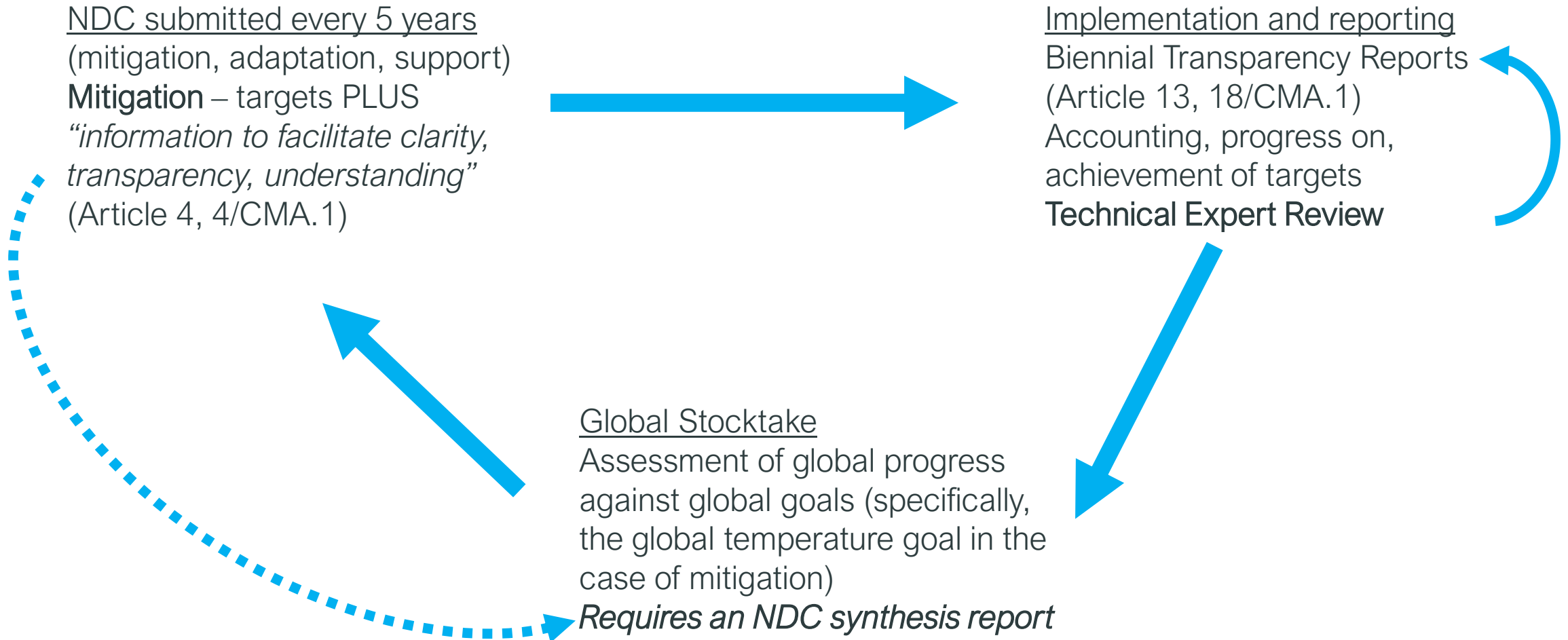
30 November 2020



INCREASING TRANSPARENCY OF NDCs

- Methodology plus NDC assessments for G20 NDCs (existing, or if available, updated NDCs) – on [www](http://www.climate-transparency.org).
- Assessments aimed at providing insights into how governments can apply ICTU guidance in the process of updating their NDCs, based on assessments of existing NDCs, in most instances communicated BEFORE Paris.
- Currently mitigation ONLY – based on 4/CMA.1 – “information to facilitate clarity, transparency, understanding”, the “Katowice Rulebook” of the Paris Agreement (COP24, 2018). Adaptation and support have different legal contexts in the Paris Agreement, though also very important.
- ICTU focuses on targets (more detail) and the *relationship* between targets and the global goal.

THE PARIS AGREEMENT AMBITION CYCLE – A KEY ROLE FOR TRANSPARENCY



FAIRNESS, PROGRESSION AND AMBITION

REQUIREMENTS IN ARTICLE 4 OF THE PARIS AGREEMENT

- Progression – in form, in ambition
- “highest possible ambition”
- “to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century” – with long-term goal of net zero in mind
- In the light of the long-term goal of the Paris Agreement in Article 2 (“well below 2 degrees”, “pursuing efforts towards 1.5 degrees”)
- “on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty”
- GST – assess need to ratchet up ambition
- All of these provide the link between efforts of individual countries and the long-term global goal – especially equity
- The ONLY place in which countries provide information on these considerations is in the ICTU, in their NDCs

CONTEXT FOR “INFORMATION TO FACILITATE CLARITY, TRANSPARENCY AND UNDERSTANDING” (ICTU)

- Why do we need ICTU? Multilateral and national reasons:
 - Clarify NDC targets (which can take any form, being “nationally determined”), for national reasons, and global reasons (adding up for GST)
 - Require Parties to provide grounds for why their NDCs fulfil the requirements set out in Article 4
 - Outline how the NDC was developed – process, inclusion etc.
- The Paris Agreement mandated Parties to develop further guidance on ICTU, as part of the “Paris Rulebook”. The Rulebook, including ICTU, was mostly finalized during COP 25 in Katowice, 2018
- There is no technical expert review process for ICTU (unlike for biennial reporting). For reporting, the technical expert review process serves both to enhance transparency, and as a source of capacity-building
- **There is no compliance process linked to following the guidance in 4/CMA.1 – others such as civil society can fill this gap**

“INFORMATION TO FACILITATE CLARITY, TRANSPARENCY AND UNDERSTANDING” (ICTU)

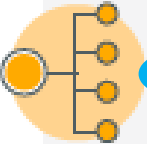
Three types of information included in the ICTU guidance:

1. Information on the NDC target:
 - Reference point (para 1)
 - Time frames (para 2)
 - Scope and coverage (para 3)
 - Assumptions/methodological approaches (accounting/other) (para 5)
2. Contextual information (including information on relevant national circumstances, on the NDC planning process, on planned implementation of the NDC, and stakeholder involvement) (para 4)
3. Information on how the NDC target contributes to the long-term temperature goal, and is fair and ambitious (paras 6-7)

HOW THE NDC TRANSPARENCY CHECK WORKS

- The Transparency Check is structured as per the Annex I of 4/CMA.1
- It consists of a methodology document and a template / table
- It provides (we hope) clear instructions on what elements of information should be present for each paragraph / provision / subprovision of 4/CMA.1. Sometimes this is clearer than at other times, and in some instances it is a matter of judgment. We have tried to minimize this; guidance on this will evolve.
- It should help to give a complete picture of which information is present / missing in a systematic way.
- It is **NOT** aimed at assessing the quality of specific provisions in the NDC, e.g. is the NDC ambitious enough? Was the process fair? Is the NDC contribution adequate? These questions can be answered via the Climate Transparency Report.
- It IS aimed at assessing whether there is enough transparency on these questions – is there enough information on the NDC to understand clearly the target level, the reasons why Parties think that their NDC is a fair contribution, etc.
- Emphasis on formal and transparent provision of information – “implied” is not sufficient

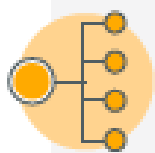
HOW THE NDC TRANSPARENCY CHECK WORKS

Element of ICTU	Included in NDC	Category of assessment	Information in NDC and assessment
 1. Quantifiable information on the reference point (including, as appropriate, a base year):			
(a) reference year(s), base year(s), reference period(s) or other starting point(s)	☒ Yes ☐ Partly ☐ No ☐ n/a	☐ Reference year(s) – including for reduction against a baseline ☒ Base year(s) ☐ Reference period(s) ☐ other starting point(s)	The EU's NDC specifies its target (at least 40% domestic reduction in emissions by 2030) relative to a 1990 base year.

Provision from 4/CMA.1

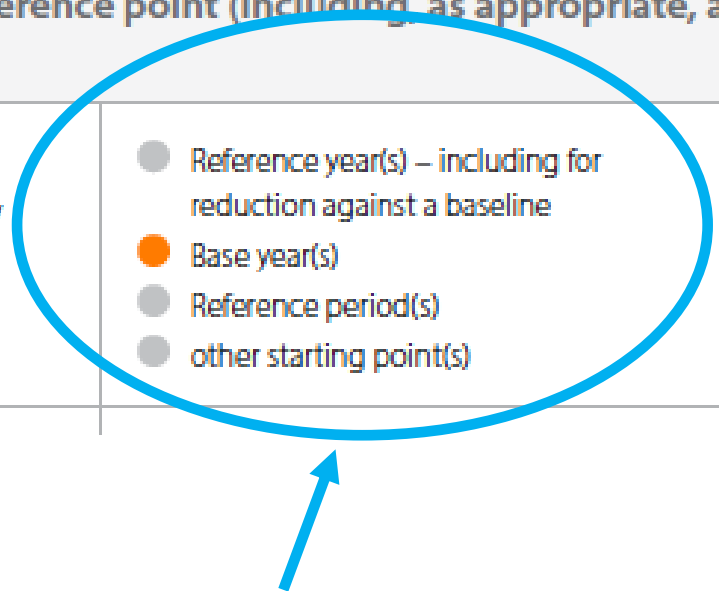
Sub - provision from 4/CMA.1

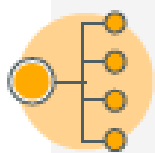
HOW THE NDC TRANSPARENCY CHECK WORKS

Element of ICTU	Included in NDC	Category of assessment	Information in NDC and assessment
 1. Quantifiable information on the reference point (including, as appropriate, a base year):			
(a) reference year(s), base year(s), reference period(s) or other starting point(s)	● Yes ● Partly ● No ● n/a	● Reference year(s) – including for reduction against a baseline ● Base year(s) ● Reference period(s) ● other starting point(s)	The EU's NDC specifies its target (at least 40% domestic reduction in emissions by 2030) relative to a 1990 base year.

Assessment based on next two columns, as applicable – not all sub-provisions are applicable to all NDCs

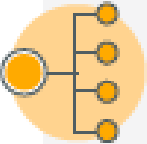
HOW THE NDC TRANSPARENCY CHECK WORKS



Element of ICTU	Included in NDC	Category of assessment	Information in NDC and assessment
 1. Quantifiable information on the reference point (including, as appropriate, a base year):			
(a) reference year(s), base year(s), reference period(s) or other starting point(s)	● Yes ● Partly ● No ● n/a	● Reference year(s) – including for reduction against a baseline ● Base year(s) ● Reference period(s) ● other starting point(s)	The EU's NDC specifies its target (at least 40% domestic reduction in emissions by 2030) relative to a 1990 base year.

Checklists of elements which should be contained in the provided information – not all NDCs require all these elements, as detailed in the methodology

HOW THE NDC TRANSPARENCY CHECK WORKS

Element of ICTU	Included in NDC	Category of assessment	Information in NDC and assessment
 1. Quantifiable information on the reference point (including, as appropriate, a base year):			
(a) reference year(s), base year(s), reference period(s) or other starting point(s)	● Yes ● Partly ● No ● n/a	● Reference year(s) – including for reduction against a baseline ● Base year(s) ● Reference period(s) ● other starting point(s)	The EU's NDC specifies its target (at least 40% domestic reduction in emissions by 2030) relative to a 1990 base year.

Brief summary of information contained in the NDC, as well as any other relevant information (details of missing/partial information)

HOW DOES MEXICO'S INITIAL NDC DO?

(SUBMITTED AS ITS INDC IN 2015, BECAME ITS NDC ON RATIFICATION IN SEPTEMBER 2016)



INTENDED NATIONALLY DETERMINED CONTRIBUTION

To bear in mind:

Mexico's NDC was communicated before the Paris Agreement was agreed, and before 4/CMA.1 was agreed. This assessment is based on a set of rules not applicable in detail at the time.

These conclusions are looking forward to the updated NDC, to be communicated in 2020/1.

ICTU Category	NDC 2016	Room for improvements for NDC Update 2020
 Reference point	BAU reference point in 2030 – values provided for 2020, 2025, 2030, but the source of the BAU projections is not provided.	Provide source, assumptions and methodological approach of BAU projections.
 Time frame	Not stated but a 10-year timeframe is implied. Period of implementation is not stated.	State time frame, including the period of implementation. Define the expected year of the first and subsequent review and update, as appropriate, at regular intervals.
 Scope and Coverage	All sectors (nature and extent of coverage of LULUCF emissions is not clearly stated); six gases, plus black carbon.	State nature and extend of LULUCF coverage in detail.
 Planning process	Limited information provided on the NDC planning process and on institutional arrangements for the NDC; no information on how the NDC will be implemented.	Enhance information on NDC planning process and institutional arrangements as well as implementation plans and/or actions (i.e. relevant policies, regulations, projects).



Assumptions, and methodological approaches

No information provided on accounting approaches; no information on which IPCC guidelines were used; no information provided on how the BAU trajectory was calculated, what assumptions applied or what methodology was used; no information on how black carbon (which is included in the NDC) will be estimated. International markets (under Article 6) will be used for the conditional part of the NDC.

Provide detailed information on

- accounting approach, including definition of land sector and specific categories
- which IPCC guidelines were used
- how BAU trajectory was calculated, assumptions applied and methodology used
- how black carbon is estimated



Fairness and ambition

Mexico's NDC provides no grounds for claims that its NDC is fair and ambitious.

Provide grounds for claims of fair and ambitious NDC, including an assessment of its progression.



Contribution to global temperature goals in the Paris Agreement and in the UNFCCC

Mexico's NDC contains no references to global temperature goals, or how its NDC contributes to these.

Add reference to the global temperature goals, and provide details on how the NDC contributes to these. If needed, international and/or independent assessments could be used as references, for instance Brown to Green Report and Climate Action Tracker, Emissions Gap Report.

TARGET: REFERENCE POINT / BUSINESS AS USUAL (5.f.i)



5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:

(f) Other assumptions and methodological approaches used for understanding the nationally determined contribution and, if applicable, estimating corresponding emissions and removals, including:			
(i) How the reference indicators, baseline(s) and/or reference level(s), including, where applicable, sector-, category- or activity-specific reference levels, are constructed, including, for example, key parameters, assumptions, definitions, methodologies, data sources and models used;	☐ Yes ☒ Partly ☐ No ☐ n/a	If the Party has chosen a mitigation target relative to a reference level, including emissions reference levels, base years, intensity targets etc: ☐ Method for estimating the reference level. ☐ Sources of data, as applicable. If the Party has chosen a mitigation target relative to a baseline scenario: ☐ Base year ☐ Key assumptions (GDP, population, etc) ☐ Methodology (analytical tool) and ☒ Resulting projection at least up to the end year ☐ Data sources	Mexico's NDC target is defined in relation to a BAU projection, but only the projection itself is provided for 2020, 2025 and 2030. No other information about the baseline is provided.

- No reference to how the BAU trajectory was calculated, what the underlying assumptions are, and under what circumstances it may be recalculated
- Time series values for BAU only provided for 2020, 2025, 2030
- No details for black carbon
- No details for which IPCC guidelines were used

TARGET: BLACK CARBON



5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals:

(iii) For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated;	● Yes ● No ● n/a	● The NDC includes black carbon, and includes information on how it is estimated. ● The NDC includes other short-lived climate forcers, and information on how these are estimated.	The NDC includes black carbon, but no information is included on how this is and/or will be estimated.
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- Black Carbon is, unusually, included in the main NDC target, despite not being included in the multilateral climate regime (UNFCCC or Paris Agreement) – target IS however disaggregated
- Since there are no IPCC guidelines on how to estimate black carbon emissions, both aggregating the NDC target and, more importantly, estimating black carbon emissions, requires additional methodological information
- (For instance, how would corresponding adjustments relate to the black carbon portion of the NDC target?)

FAIR AND AMBITIOUS – KEY LINKS TO THE GLOBAL GOAL (6)



6. How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances:

(a) How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances;	Fair ☒ Yes ☐ No Ambitious ☒ Yes ☐ No	☒ Inclusion of grounds for why the NDC target is fair. ☒ Inclusion of grounds for why the NDC target is ambitious.	Mexico's NDC contains a section on "fair and ambitious" in which it states the facts that i) Mexico is a developing country and vulnerable to the effect of climate change, its emissions only comprise 1.4% of global emissions, and its per capita emissions are 5.9 t CO ₂ -eq. It cites its commitment to an unconditional target of 22%, which increased to 25% on account of the inclusion of black carbon, as evidence of fairness and ambition. No grounds are provided for any of these conclusions.
b) Fairness considerations, including reflecting on equity;	☐ Yes ☐ Partly ☒ No	The country has provided in its NDC: ☐ References to equity analyses by international experts. ☐ References to equity analyses by in-country experts. ☒ References to indicators found in equity literature. ☐ References to the application of preferred equity indicators to other countries.	Mexico provides no grounds to support the claim that its NDC is fair. The NDC references its per capita emissions currently but not those projected for the target year.

Key Points:

- We have distinguished between whether a party has claimed that its NDC is fair and ambitious (in 6(a)), and whether it provides sufficient grounds to justify this claim
- This is difficult to assess, given the normative nature of the concept of "fairness", but we have provided what we consider a list of grounds which Parties may provide
- We consider it important for Parties to reference independent analyses





MUCHAS GRACIAS

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