



This country profile is part of the **Climate Transparency Report 2020**. www.climate-transparency.org

PER CAPITA GREENHOUSE GAS (GHG) EMISSIONS

The Philippines per capita greenhouse gas (GHG) emissions (incl. land use) were 1.18 tCO₂e/capita¹.

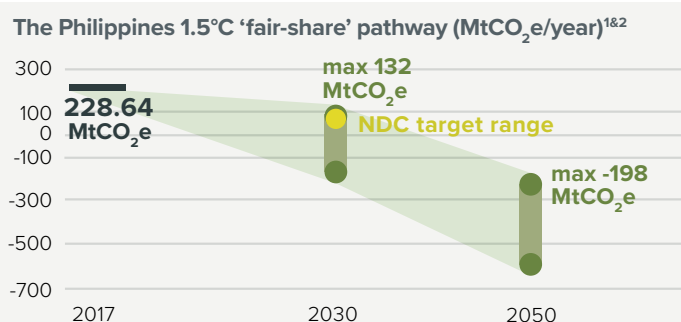
Data for 2017.
Sources: Enerdata, 2020; UN Department of Economic and Social Affairs Population Division, 2020



NOT ON TRACK FOR A 1.5°C WORLD



The Philippines would need to reduce its emissions to below 132 MtCO₂e by 2030 and to below -198 MtCO₂e by 2050, to be within a 1.5°C 'fair-share' pathway. The NDC target range – from 90 to 102 MtCO₂e in 2030 – is 1.5°C 'fair-share' compatible; however, owing to



Source: Climate Action Tracker, 2019

its conditional nature, the CAT rates it as a 2°C compatible.

All figures exclude land use emissions and are based on pre-COVID-19 projections.

KEY OPPORTUNITIES FOR ENHANCING CLIMATE AMBITION



Submit an updated NDC to be 1.5°C Paris compatible in 2020, and include an unconditional target.



Implement announced coal moratorium to include the whole pipeline of currently planned coal-fired power generation, and develop a plan to phase out coal by 2040, with a just transition plan.



Pursue international collaboration to upgrade to a flexible power grid that can absorb more variable renewable energy and rapidly develop renewable energy forecasting, expand metro rail systems, deploy bus rapid transit systems, treble electric public road transport, establish interconnected, urban bicycle lanes.

RECENT DEVELOPMENTS



The country's largest utility included a 'carve-out clause' in its power purchase agreements. Under certain conditions the utility can now opt out of, or curtail, procurement of artificially inflated coal supply contracts in favour of buying cheaper renewable power.



In July 2020, the DOE emphasised its commitment to transition to reverse energy auctions by 2021. The move is expected to dramatically accelerate renewable energy deployment.



In April 2020, the Philippine central bank approved the Sustainable Finance Framework to safeguard the financial system from evolving transition risks, and to increase the value of low-carbon opportunities. The framework complements mandatory environmental, social and governance reporting guidelines for publicly listed companies.

References: Ahmed and Dalunsung, 2020; Domingo, 2020; Bangko Sentral Ng Pilipinas, 2020; Veloso and Vallada, 2019; Ahmed, 2020; Climate Action Tracker, 2019b; Business Mirror, 2020; Department of Energy, 2020b

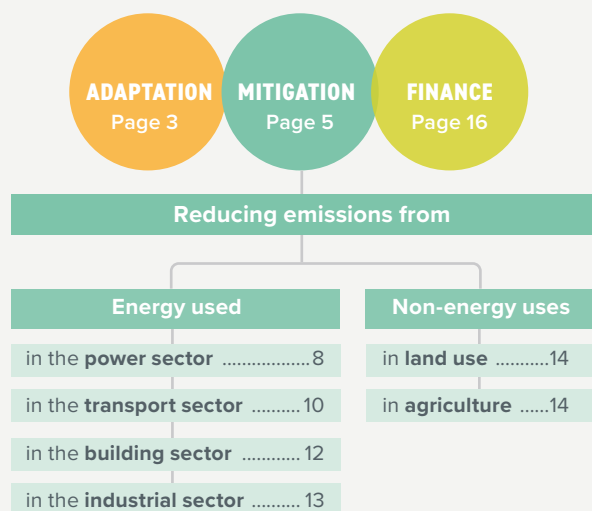
CORONAVIRUS RECOVERY

President Duterte stated the urgency to fight COVID-19 is also required to tackle climate change. Government is planning a PHP 4.3tn (USD 119bn) budget for 2021. The PHP 1.3tn economic stimulus plan has passed the Lower House but not the Senate. House Bill No. 6864 establishes pandemic safety measures noting the importance of sustainable pathways, protecting biodiversity and environmental laws. The Corporate Recovery and Tax Incentives for Enterprises (CREATE) sets out to reduce income tax by 5% for industries that reduce reliance on carbon based energy. The government intends to draw investments for renewable infrastructure projects in addition to research and development.

References: PhilStar, 2020; The Straits Times, 2020; CNN, 2020; Cepeda, 2020; Gotinga, 2020; Cordero, 2020; Department of Energy, 2020a; DOF, 2020; de Vera, 2020

CONTENTS

We unpack the Philippines' progress and highlight key opportunities to enhance climate action across:



LEGEND

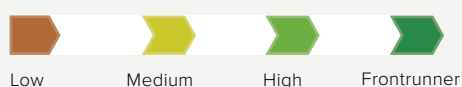
Trends show developments over the past five years for which data are available. The thumbs indicate assessment from a climate protection perspective.



Decarbonisation Ratings⁴ assess a country's performance compared to other G20 countries. A high score reflects a relatively good effort from a climate protection perspective but is not necessarily 1.5°C compatible.



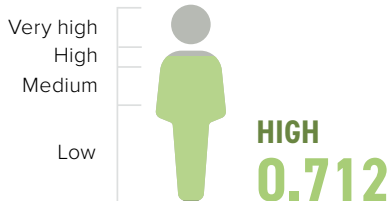
Policy Ratings⁵ evaluate a selection of policies that are essential pre-conditions for the longer-term transformation required to meet the 1.5°C limit.



SOCIO-ECONOMIC CONTEXT

Human Development Index

The Human Development Index reflects life expectancy, level of education, and per capita income. The Philippines ranks high.



Data for 2018. Source: UNDP, 2019

Gross Domestic Product (GDP) per capita

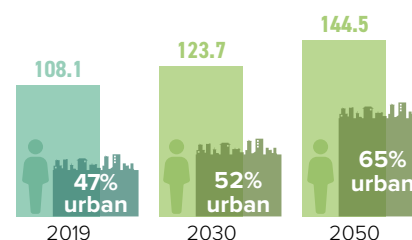


Data for 2019. Source: The World Bank, 2020

Population and urbanisation projections

(in millions)

The Philippines' population is expected to increase by about 34% by 2050 and become more urbanised.



Sources: The World Bank, 2019; United Nations, 2018

Death rate attributable to air pollution

Ambient air pollution attributable death rate per 1,000 population per year, age standardised

0.72

Nearly 47,000 people die in the Philippines every year as a result of outdoor air pollution, due to stroke, heart disease, lung cancer and chronic respiratory diseases.

46,816 deaths per year

Data for 2016. Source: WHO, 2018

JUST TRANSITION



UPGRADE SKILLS FOR FUTURE EMPLOYMENT

While policies still favour baseload coal capacity, the government is improving the competitive landscape through fixed price procurement and moving away from transferring volatility to consumers. The modernised wholesale spot market removes the automatic nomination of a minimum stable load, which was a previous advantage for coal-fired power. This means coal will have to be cost-competitive to be

dispatched. **The Philippines requires an inclusive strategy for a just transition away from imported coal and gas and towards renewable energy to assist economic recovery** from the impacts of COVID-19, e.g. through employment creation. There is an opportunity to re-train power sector workers and upgrade skills for future employment opportunities. A just transition is likewise needed in transport.

References: Ahmed and Dalunsung, 2020; CAT, 2019a

1. ADAPTATION

ADDRESSING AND REDUCING VULNERABILITY TO CLIMATE CHANGE



PARIS AGREEMENT Increase the ability to adapt to the adverse effects of climate change and foster climate resilience and low-GHG development.



Adaptation actions are urgently needed particularly in highly vulnerable sectors such as food, agriculture, water, marine resources, biodiversity, human health.



Rising sea levels, ocean acidification and gradual changes in hydrology require urgent integration into long-term development strategies.



Enabling adaptation action means government redefining climate away from narrow disaster framing.

ADAPTATION NEEDS

Climate Risk Index

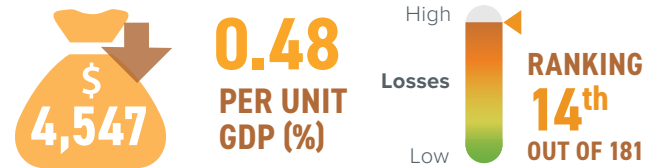
Impacts of extreme weather events in terms of fatalities and economic losses that occurred. All numbers are averages (1999-2018).

Annual weather-related fatalities



Source: Germanwatch, 2019

Annual average losses (USD mn PPP)



Source: Germanwatch, 2019

Exposure to future impacts at 1.5°C, 2°C and 3°C

No future impact ranking data available

CORONAVIRUS RECOVERY

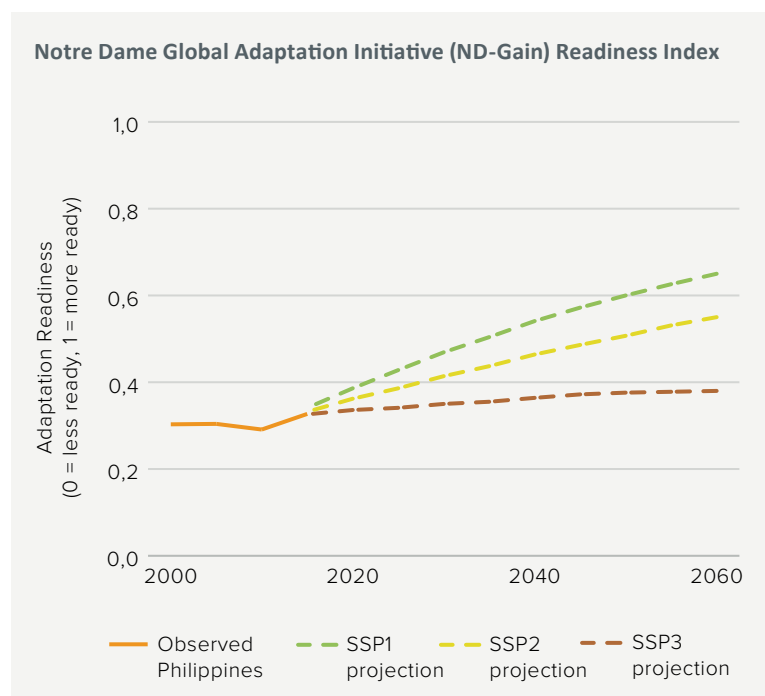
When the Philippines was hit by Typhoon VongFong in May 2020, typhoon preparation and evacuation efforts were complicated by the social-distancing requirements of the response to COVID-19.

In August 2020 a COVID-19 humanitarian response plan was launched to assist 5.4 million of the poorest, most marginalized Filipinos. Any pandemic stimulus needs to upgrade essential areas of the economy like medical and food supply chains, urban services and energy infrastructure in a manner that also achieves climate goals and the attainment of the Sustainable Development Goals.

References: Constantino, 2020; UN News, 2020; UN Philippines, 2020

Adaptation readiness

The figure shows 2000-2015 observed data from the ND-GAIN Index overlaid with projected Shared Socioeconomic Pathways (SSPs) from 2015-2060.



The Philippines has both a great need for investment and innovations to improve readiness and a great urgency for action. Measures in line with SSP1 would produce improvements. Other measures, as represented by SSP2 and SSP3, would continue to undermine its readiness to adapt in the long term.

The readiness component of the Index created by the Notre Dame Global Adaptation Initiative (ND-GAIN) encompasses social economic and governance indicators to assess a country's readiness to deploy private and public investments in aid of adaptation. The index ranges from 0 (low readiness) to 1 (high readiness).

The overlaid SSPs are qualitative and quantitative representations of a range of possible futures. The three scenarios shown here in dotted lines are qualitatively described as a *sustainable development-compatible scenario (SSP1)*, a *middle-of-the-road (SSP2)* and a *'Regional Rivalry' (SSP3)* scenario.

Source: Andrijevic et al., 2019

ADAPTATION POLICIES

National Adaptation Strategies

Document name	Publication year	Fields of action (sectors)												M&E process		
		Agriculture	Biodiversity	Coastal areas and fishing	Education and research	Energy and industry	Finance and insurance	Forestry	Health	Infrastructure	Tourism	Transport	Urbanism			Water
National Climate Change Action Plan (NCCAP)	2011	●	●	●	●	●	●	●	●	●	●	●	●	●		
NCCAP Results-Based Monitoring and Evaluation System (RBMES)	2011															●

Nationally Determined Contribution (NDC): Adaptation

Targets

Not mentioned

Actions

1. Strengthen institutions and systems for modelling, scenario-building, monitoring and observation
2. Implement a science-based climate/disaster risk and vulnerability assessment process for programs and projects.
3. Develop climate and disaster-resilient ecosystems
4. Enhance the climate and disaster-resilience of key sectors (agriculture, water and health)
5. Transition to a climate and disaster-resilient social and economic growth
6. R&D on climate change and impacts for improved risk assessment and management.

Reference: Republic of the Philippines, 2015. An updated NDC is due in 2020, but not available at time of writing

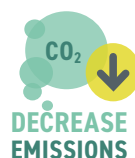
2. MITIGATION

REDUCING EMISSIONS TO LIMIT GLOBAL TEMPERATURE INCREASE

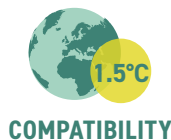


Hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit to 1.5°C, recognising that this would significantly reduce the risks and impacts of climate change.

EMISSIONS OVERVIEW



The Philippines' GHG emissions have significantly increased by 114% (1990-2017). The Philippines' 2030 emissions pathway, as proposed in its NDC, could be rated 1.5°C 'fair-share' compatible, if it were unconditional.

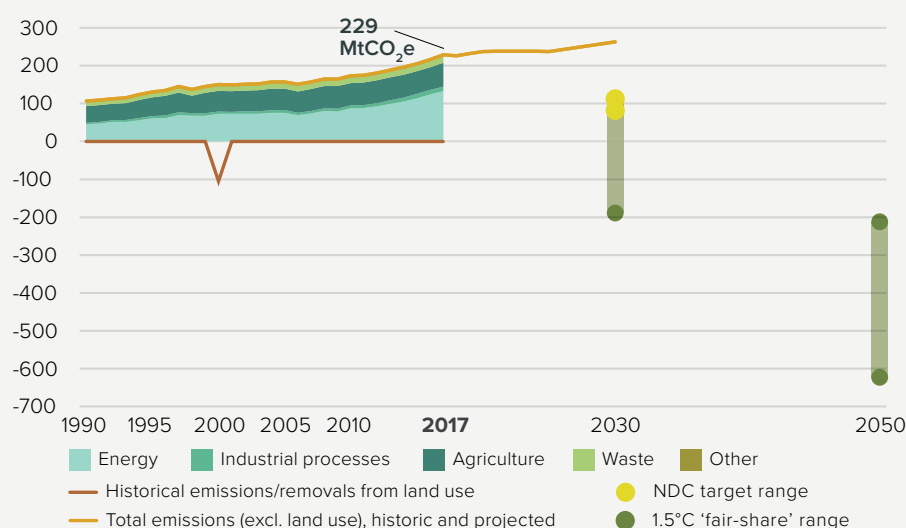


In 2030, global CO₂ emissions need to be 45% below 2010 levels and reach net zero by 2050. Global energy-related CO₂ emissions must be cut by 40% below 2010 levels by 2030 and reach net-zero by 2060.

Source: Rogelj et al., 2018

GHG emissions across sectors and CAT 1.5°C 'fair-share' range (MtCO₂e/year)

Total GHG emissions across sectors (MtCO₂e/year)

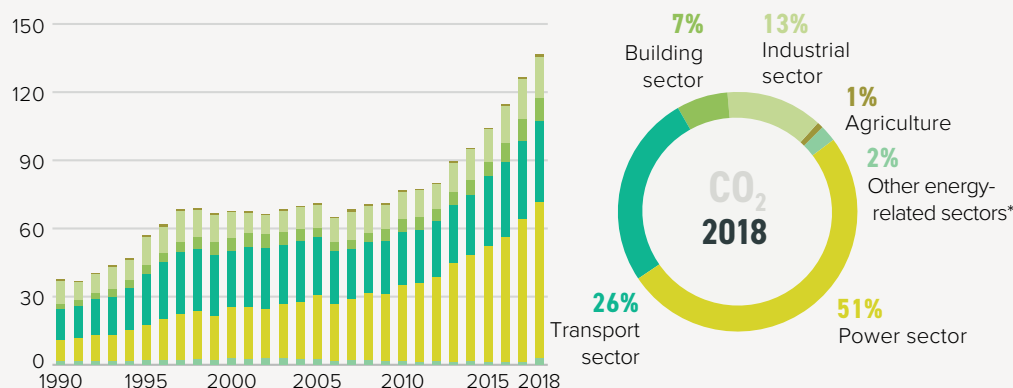


The Philippines' emissions (excl. land use) increased by 114% between 1990 and 2017. Huge increases are seen in the energy and industrial processes sectors, 192% and 203% respectively (1990-2017). Under current policies, recent projections show emissions will continue to increase to 2030, rather than decline to meet the conditional national mitigation target. The Philippines needs to implement additional policies to reach its target. **The current target would be 1.5°C 'fair-share' compatible if it was not a conditional target.**

Source: Climate Action Tracker, 2019

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%.

The largest driver of overall GHG emissions are CO₂ emissions from fuel combustion. In the Philippines, energy related CO₂ emissions from electricity and heat generation has increased year on year since 2009. Electricity and heat now accounts for over half of the energy related CO₂ emissions (51%). The second largest contributor to energy related CO₂ emissions is the transport sector (26%), followed by industry (13%) and buildings (7%).

Source: Enerdata, 2020

CORONAVIRUS RECOVERY

The COVID-19 pandemic has largely revealed systemic weaknesses that would have otherwise taken more time to uncover.

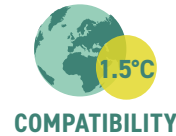
It is important to recognise smart and forward-looking government spending in the near-term and longer-term is as urgent as collaborative mechanisms between government, NGOs, and the private sector. Core spending to address the pandemic fallout can very well be the same resilience spending required to adapt to climate change and to secure early attainment of Sustainable Development Goals.

References: ICSC, 2020

ENERGY OVERVIEW



Fossil fuels make up 70% of the Philippines' energy mix (counting power, heat, transport fuels, etc). The total primary energy supply has been rising for the past decade, and renewables have not kept pace, with their share of the mix decreasing since 2009. The Philippines needs to meet its growing need for energy with renewables and more rapidly phase out fossil fuels.

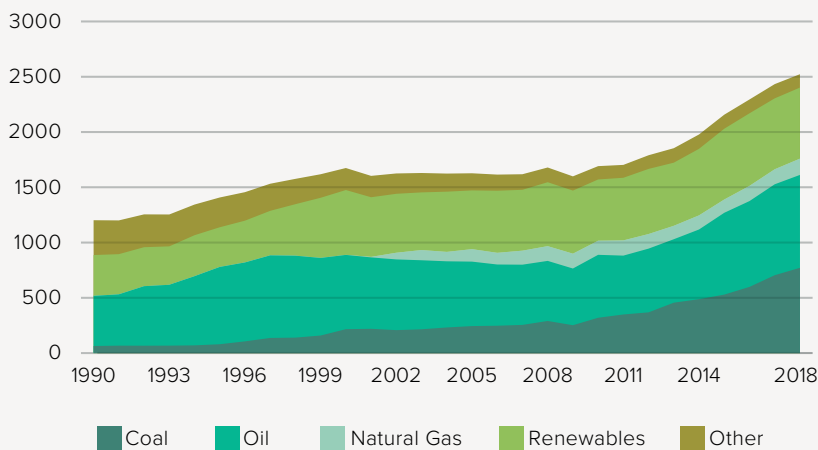


The share of **fossil fuels globally needs to fall to 67% of global total primary energy by 2030 and to 33% by 2050** (and to substantially lower levels without Carbon Capture and Storage).

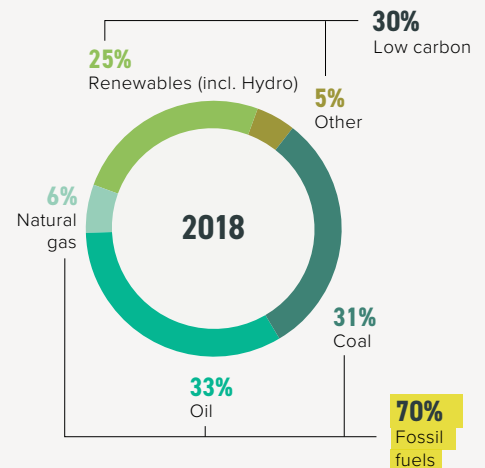
Source: Rogelj et al., 2018

Energy Mix

Total primary energy supply (PJ)



Data for 2018. Source: Enerdata, 2020

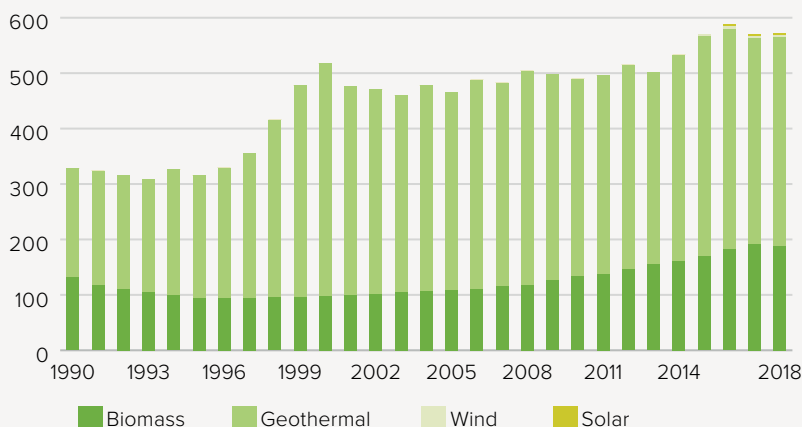


Due to rounding, some graphs may sum to slightly above or below 100%.

This graph shows the fuel mix for all energy supply, including energy used for electricity generation, heating, cooking, as well as transport fuels. Fossil fuels (oil, coal and gas) still make up 70%, whereas the share of renewables makes up 25%, with a declining share of the total primary energy supply. The increasing demand for energy has been met with increasing amounts of fossil fuels. Since 2011 the energy mix has been increasingly dominated by fossil fuels.

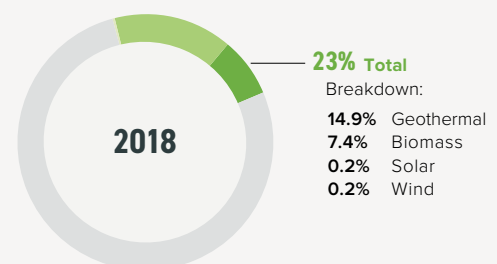
Solar, Wind, Geothermal, and Biomass Development

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



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%.

Solar, wind, geothermal and biomass account for 23% of the Philippines' energy supply

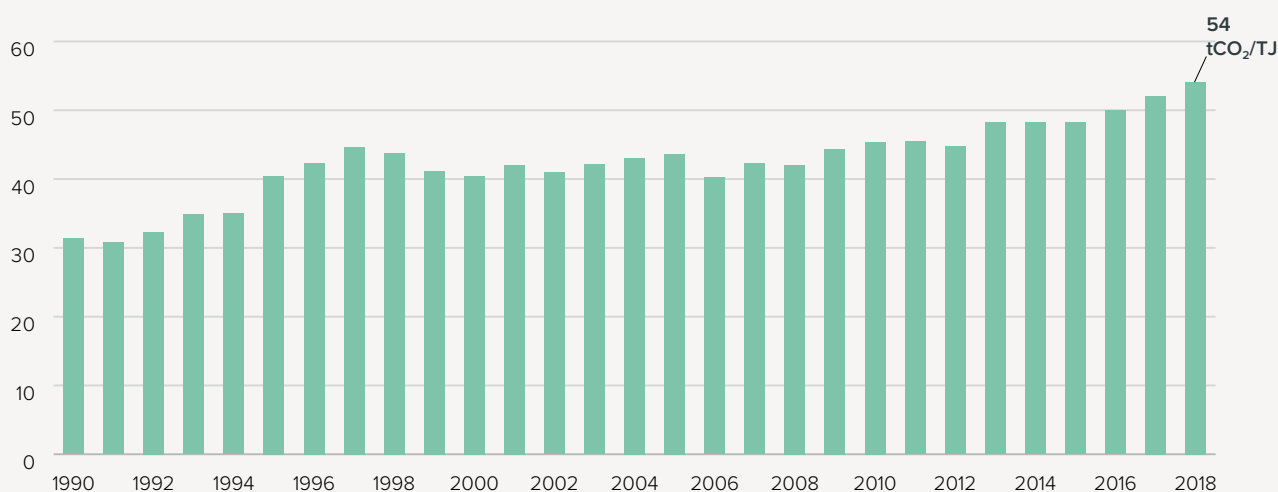


Source: Enerdata, 2020

Solar, wind, geothermal and biomass represent 23% of the Philippines' energy supply, declining over the past decade from a high of 31% share in 2009. Geothermal accounts for the largest share at 15%, and biomass the second largest with 7%. Solar and wind are negligible contributions, at less than 0.2% share of the energy supply mix each.

Carbon Intensity of the Energy Sector

Tonnes of CO₂ per unit of total primary energy supply (tCO₂/TJ)



Source: Enerdata, 2020

Carbon intensity shows how much CO₂ is emitted per unit of energy supply.

In the Philippines, carbon intensity has been increasing steadily over the past decade, reaching 54 tCO₂/TJ in 2018.

Source: Enerdata, 2020

Energy supply per capita

24
GJ/capita

Source: Enerdata, 2020; The World Bank, 2019

TPES per capita
(GJ/capita):
5-year trend
(2014-2019)



+27.4%

The level of energy use per capita is closely related to economic development, climatic conditions and the price of energy. Energy use per capita in the Philippines is 24 GJ/capita, but is increasing by 27.4% (2013-2018).

Energy intensity of the economy

2.73
TJ/PPP USD2015 millions

Data for 2018. Source: Enerdata, 2020; The World Bank, 2018

Energy intensity
of the economy:
5-year trend
(2013-2018)



+0.5%

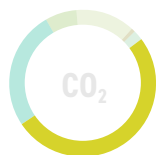
This indicator quantifies how much energy is used for each unit of GDP. This is closely related to the level of industrialisation, efficiency achievements, climatic conditions or geography. The Philippines' energy intensity is increasing slightly – by 0.5% between 2013 and 2018.



POWER SECTOR

Emissions from energy used to make electricity and heat

The Philippines still produces 51% of its electricity from coal, and as renewable energy expansion in power generation has decreased, its share has stagnated. To stay within a 1.5°C limit, the Philippines needs to phase out coal by 2040 and accelerate a transition to renewable energy.



51% 51% share in energy-related CO₂ emissions from electricity and heat production in 2018

Source: Enerdata, 2020



Coal and decarbonisation

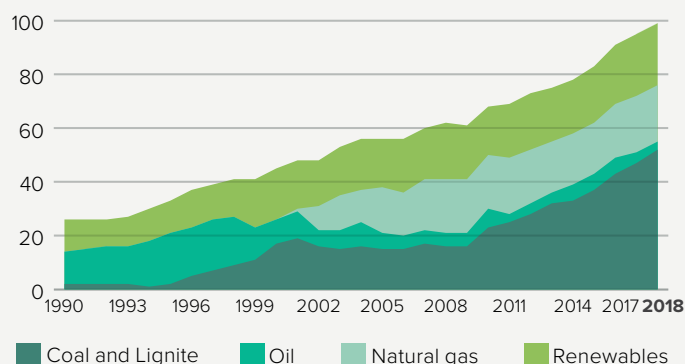
Worldwide, **coal use for power generation needs to peak by 2020** and, between 2030 and 2040, all the regions of the world need to phase out coal-fired power generation. **Electricity generation has to be decarbonised before 2050**, with renewable energy the most promising alternative.

Sources: Rogelj et al., 2018; Climate Analytics, 2016; Climate Analytics, 2019

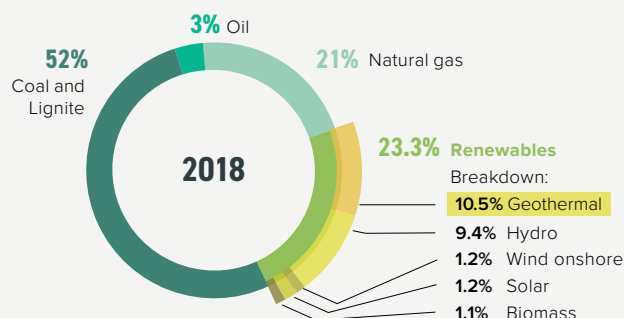
STATUS OF DECARBONISATION

Electricity mix

Gross power generation (TWh)



Source: Enerdata, 2020



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

Renewable energy generation in the Philippines has grown very little, with its share in power generation decreasing steadily, accounting for 23% of the power mix in 2018. In sharp contrast, the level of coal power has been increasing over the past decade, with its share doubling over the past decade to reach more than half – 52% – of electricity generation in the country in 2018.

Share of renewables in power generation

(incl. large hydro)

23%

Share of renewables in power generation:
5-year trend
(2014-2019)



-11%

Source: Enerdata, 2020

Emissions intensity of the power sector

691
gCO₂/kWh

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

 +18.7%

Source: Enerdata, 2020

For each kilowatt hour of electricity, 691 gCO₂ are emitted in the Philippines. This is increasing rapidly (18.7% over the last 5 years) and reflects the increasing share of coal in power generation and the decreasing share of renewable energy.

POLICY ASSESSMENT

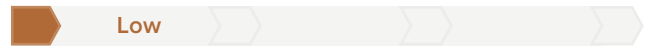
Renewable energy in the power sector



The National Renewable Energy Programme (NREP 2011-2030) provides the policy framework for the implementation of the Renewable Energy Act (2008), including targets to triple renewable energy generation by 2030 to 15,304 MW, in comparison with 2010 generation. The NREP 2020-2040 is under development and will likely improve upon the renewable energy targets.

Reference: own evaluation, based on Republic of the Philippines National Renewable Energy Programme, 2011-2030

Coal phase-out in the power sector



2.5 GW of new coal power capacity is under construction in the Philippines, with a further 9.4 GW in various stages of the planning process. According to the Philippines Energy Plan 2017-2040, coal will still account for 30% of energy supply in 2035 – with an eventual phase-out only in 2062. However, owing to competition and the deflationary nature of renewables, including policies taken up by the country's financial regulators, other studies project the last new coal plant would be added in 2023. The coal moratorium has been announced but is not yet defined in policy, and the Energy Secretary indicates it will only apply to yet-to-be-proposed projects.

References: own evaluation, based on Climate Action Tracker, 2019b; Logarta and Ahmed, 2020; Republic of the Philippines, 2017; Velasco, 2020



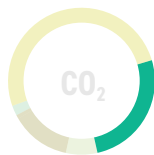
TRANSPORT SECTOR

Emissions from energy used to transport people and goods

Emissions from transport represent 26% of direct CO₂ emissions, and less than 0.1% of electricity related CO₂ emissions. The transport sector is dominated by fossil fuels, but there is the opportunity to electrify this sector, whilst decarbonising the electricity sector. To stay within a 1.5°C limit, passenger and freight transport need to be decarbonised.

Share in energy-related CO₂ emissions from transport sector

Source: Enerdata, 2020



0.07%

Electricity-related emissions

26%

Direct emissions



COMPATIBILITY

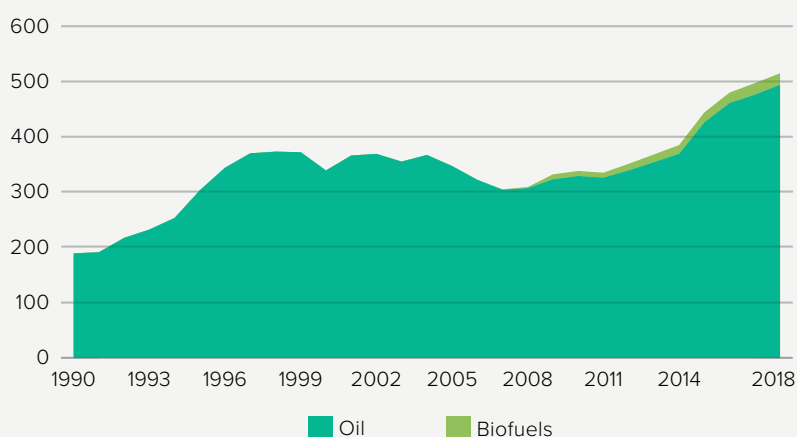
The share of low-carbon fuels in the transport fuel mix must increase to about 60% by 2050.

Source: Rogelj et al., 2018

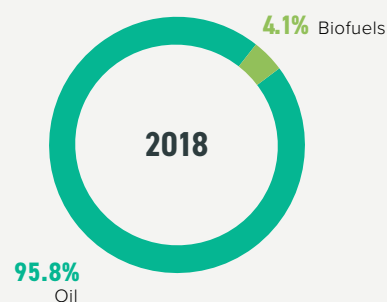
STATUS OF DECARBONISATION

Transport energy mix

Final energy consumption of transport by source (PJ/year)



Source: Enerdata, 2020



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

Electricity makes up just 0.1% of the energy mix for transport. Biofuels makes up 4%, while oil takes the majority share of fuel for transport.

Transport emissions per capita

excl. aviation (tCO₂/capita)

No data available

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

No data available

Aviation emissions per capita⁶

Aviation emissions:
5-year trend
(2012-2017)



+32.1%

Data for 2017. Source: Enerdata, 2020

Motorisation rate

No data available

Road transport is the most common form of passenger transport, but the archipelago is also reliant on maritime transport between islands.

Market share of electric vehicles in new car sales (%)

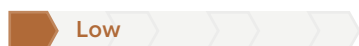
No data available

Passenger transport
(modal split in % of passenger-km)

No data available

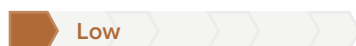
Freight transport
(modal split in % of tonne-km)

No data available

POLICY ASSESSMENT**Phase out fossil fuel cars**

The Jeepney+ NAMA aims to replace 200,000 old jeepneys with new higher-capacity vehicles which will lead to a 6% reduction on overall road transport GHG emissions annually.

References: own evaluation based on Patdu and Olavides, 2013; Mariano, 2020

Phase out fossil fuel heavy-duty vehicles

All heavy-duty vehicles are required to register annually at the Land Transportation Office. Requirements include a certificate of emission compliance.

References: own evaluation based on Clean Air Coalition et al., 2018

Modal shift in (ground) transport

Given the dominance of road transport in the sector, the Philippines aims for an increase in efficiency in road transport, rather than a modal shift. The first metro system in the Philippines, however, is currently under construction, to be completed by 2025.

References: own evaluation based on Mafex, 2018; Republic of the Philippines, 2017

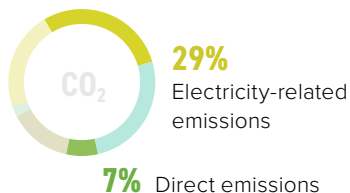


BUILDING SECTOR

Emissions from energy used to build, heat and cool buildings

The Philippines' buildings sector – counting heating, cooking and also electricity use – makes up 7% of direct CO₂ emissions. Per capita, building-related emissions have increased by 51% over the last 5 years. Building emissions can be decarbonised by improving energy efficiency, and increasing electrification and renewable electricity.

Building emissions occur directly (burning fuels for heating, cooking, etc) and indirectly (grid-electricity for air conditioning, appliances, etc.)



Data for 2018. Source: Enerdata, 2020



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 in conjunction with complete decarbonisation of the power sector.

Source: Rogelj et al., 2018

STATUS OF DECARBONISATION

Building emissions per capita (incl. indirect emissions)



The Philippines' building-related emissions per capita are increasing at a very high rate of 51.44% (2013-2018).

Source: Enerdata, 2020

Residential buildings Energy use per m²

No data available

Commercial and public buildings Energy use per m²

No data available

Building emissions are largely driven by how much energy is used in heating, cooling, lighting, household appliances, etc.



POLICY ASSESSMENT

Near zero energy new buildings



The energy efficiency targets for the building sectors equal 1.9% in commercial and 1.2 % in residential buildings of implied annual savings until 2040. Moreover, the Green Building Code encompasses energy efficiency measures in specific parts of building, such as efficiency requirements for air conditioning.

References: own evaluation based on Republic of the Philippines, 2017; Department of Public Works and Highways, 2015

Renovation of existing buildings



The Philippines building retrofit policy contains minimum requirements or guidelines on energy conserving designs of buildings and includes specific requirements for air conditioning, lighting and hot water systems.

References: own evaluation based on Congress of the Philippines, 2018; de Jesus, 2019



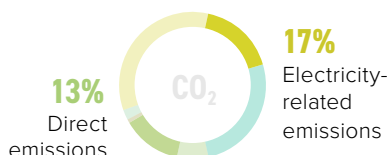
INDUSTRY SECTOR

Emissions from energy in the industrial sector

The industry sector had a 13% share of direct CO₂ emissions and 17% share in electricity related CO₂ emissions in 2018.

Share in energy-related CO₂ emissions from industrial sector

Data for 2018.
Source: Enerdata, 2020



Industrial emissions need to be reduced by 65-90% from 2010 levels by 2050.

Source: Rogelj et al., 2018

STATUS OF DECARBONISATION

Industry emissions intensity⁷



Industry emissions:
5-year trend
(2011-2016)



Data for 2016. Sources: Gütschow et al., 2019; Enerdata, 2020

Carbon intensity of cement production⁸ (kgCO₂/tonne product)



The Philippines cement industry emissions intensity was 683 kgCO₂/tonne product in 2016, higher than the world average of 614 kgCO₂/tonne product.

Data for 2016. Sources: CAT Decarbonisation Data Portal, 2020

Carbon intensity of steel production⁸ (kgCO₂/tonne product)



Steel production and steelmaking are significant GHG emissions sources, and challenging to decarbonise.

Data for 2016. Source: World Steel Association, 2018

POLICY ASSESSMENT

Energy Efficiency

The Energy Efficiency and Conservation Act aims to reduce overall demand by 24% below business-as-usual levels by 2040. Nevertheless, the indicative **energy efficiency target for the industrial sector is to save 1.3% annually**, resulting in 15% savings by 2040.

Source: Climate Action Tracker, 2019b; Republic of the Philippines, 2017



LAND USE SECTOR

Emissions from changes in the use of the land



To stay within the 1.5°C limit, the Philippines needs to ensure the land use and forest sector is a net sink of emissions, e.g. by discontinuing the degradation of peatlands and use of moor soils, converting cropland into wetlands, and by creating new forests.



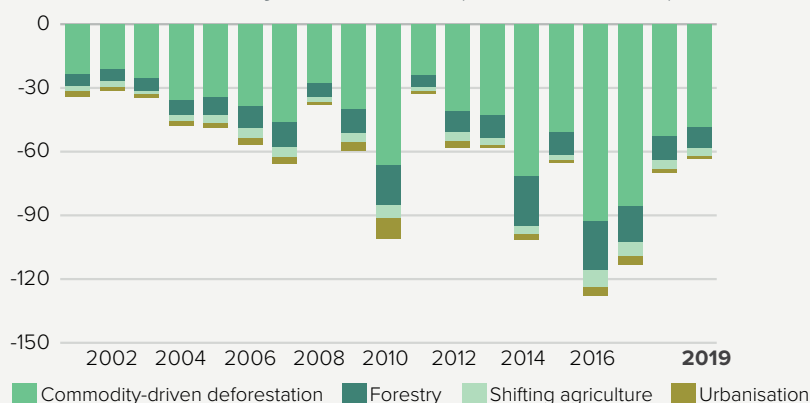
COMPATIBILITY

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

Source: Rogelj et al., 2018

Global tree-cover loss

Gross tree-cover loss by dominant driver (thousand hectares)



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.

Source: Global Forest Watch, 2019

POLICY ASSESSMENT

Target for **net-zero deforestation**



The Philippines aims to meet 40% of its intended 70% emissions reductions target through forest conservation. The Philippines Master Plan for Climate Change Resilient Forestry aims to protect, conserve and sustainably manage 6.8 million hectares of existing forests until 2026.

References: own evaluation, based on Forest Management Bureau, 2016a, 2016b



AGRICULTURE SECTOR

Emissions from agriculture



The Philippines' agricultural emissions are mainly from rice cultivation (33.8 MtCO₂e) accounting for 62% of agriculture emissions. Emissions are also from digestive processes in animals (12%), livestock manure (13%) and the use of synthetic fertilisers (9%).

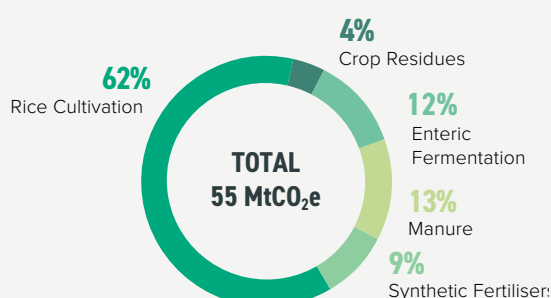


COMPATIBILITY

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: Rogelj et al., 2018

Emissions from agriculture (excluding energy)



Data for 2017. Source: FAO, 2019

In the Philippines, the largest sources of GHG emissions in the agricultural sector is from rice cultivation, but also the digestive processes in animals (enteric fermentation), livestock manure and the use of synthetic fertilisers. A shift to organic farming, more efficient use of fertilisers and dietary changes can help reduce emissions.

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

MITIGATION: TARGETS AND AMBITION

The combined mitigation effect of nationally determined contributions (NDC) submitted by September 2020 is not sufficient and will lead to a warming of 2.7°C by the end of the century. This highlights the urgent need for all countries to submit more ambitious targets by 2020, as they agreed in 2015, and to urgently strengthen their climate action to align to the Paris Agreement's temperature goal.

AMBITION: 2030 TARGETS

Nationally Determined Contribution (NDC): Mitigation

Targets

70% below business-as-usual by 2030, **conditional** on financial, technological and capacity building support.

Actions

Not mentioned

Climate Action Tracker (CAT) evaluation of NDC and actions

	Critically Insufficient
	Highly Insufficient
	Insufficient
●	2°C Compatible
	1.5°C Compatible
	Role Model

NDCs with this rating fall well outside of a country's fair-share range and are not at all consistent with holding warming to below 2°C let alone with the Paris Agreement's stronger 1.5°C limit. If all government NDCs were in this range, warming would exceed 4°C.

The Philippines' **conditional** NDC target is rated "2°C compatible" and the government is currently revising its NDC with a view to submitting in 2020. The NDC target would be "1.5°C 'fair-share' compatible," if it were **unconditional**. Current policies are not yet on track to meet the NDC target with one of the key issues being the projected growth of coal, triggering concerns over the potential creation of stranded coal assets worth billions.

Evaluation as at October 2020, based on country's NDC. Source: Climate Action Tracker

AMBITION: LONG-TERM STRATEGIES

Status	No strategy yet
2050 target	n.a.
Interim steps	n.a.
Sectoral targets	n.a.
Net-Zero target	n.a.
Net-Zero year	n.a.

The Paris Agreement invites countries to communicate mid-century, long-term, and low GHG emissions development strategies by 2020. Long-term strategies are an essential component of the transition toward net-zero emissions and climate-resilient economies.

3. FINANCE

MAKING FINANCE FLOWS CONSISTENT WITH CLIMATE GOALS



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



There is no data available on the Philippines spending on fossil fuel subsidies because fossil fuel price fluctuations and capacity fees are automatically paid by consumers. **The Philippines' cross-subsidy provides USD 206.4m per annum for diesel fuel alone in small island and isolated grids.** The Philippines has no explicit carbon price.



Investment in green energy and infrastructure needs to outweigh fossil fuel investments by 2025.

Source: Rogelj et al., 2018

FISCAL POLICY LEVERS

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

Fossil Fuel Subsidies

Philippines Fossil fuel subsidies (USD billions)

No data available

Fossil Fuel Subsidies by fuel type

Subsidies by fuel type

No data available

Neither the OECD nor the IEA datasets used for the other countries in this report include any data on fossil fuel subsidies for the Philippines. It is, therefore, not possible to provide any type of comparable data on subsidies for this country. However, according to some estimates, in 2015 the Philippines provided USD 10bn in energy subsidies. No breakdown by fossil fuel type is provided. Note that this figure for subsidies is based on a broader definition of subsidies as compared to the OECD as well as the IEA one adopted for the rest of the countries in this report. Moreover, it is hard to unpack the figures because, since 2001, the Filipino government is no longer allowed by law to invest in generation assets. The Philippines provide USD 206.4m per annum for diesel fuel in small island and isolated grids through consumers' electricity tariffs.

Sources: Ahmed, 2019; Department of Energy, 2003; IMF, 2019

Carbon pricing and revenue

No data available

The Philippines does not have an explicit carbon taxation scheme in place. The introduction of a tax has been debated in various instances at government level over the last few years. In November 2019, the government announced they are re-considering introducing a carbon tax, which also reflects its engagement with IMF recommendations.

The Tax Reform Program (CTRP) – signed into law in December 2017 as Republic Act 10963 – includes increasing excise taxes on diesel, fuel oil, liquid petroleum gas and kerosene products. It mandates a staggered increase from P50 (+/-USD1) per metric ton in 2018 to the current rate of P150 (+/-USD3) as from January 2020. Domestically-produced coal is still VAT-exempt.

Source: Castillo et al., 2018

CORONAVIRUS RECOVERY

The Philippines government is planning PHP 4.3tn (USD 119bn) budget for 2021, higher than previous years to plan for economic recovery (5% higher than in 2019).

An economic stimulus plan passed the lower house in June 2020 amounting to PHP 1.3tn, with another stimulus package under review. With the right policies, the unprecedented economic recovery funds and national budget for 2021 offer an opportunity to economically decarbonise the economy, meeting the Paris Agreement while taking advantage of deflationary renewables and power system flexibility.

Source: The Straits Times, 2020

PUBLIC FINANCE

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

Public finance for fossil fuels

Public finance provided to fossil fuels (in USD millions)

No data available

No comparable data is available for the Philippines as the Price of Oil dataset utilised in this analysis does not include non-G20 countries. Most of the public finance for fossil fuels seems to be coming from foreign ECAs and multilateral development banks.

Provision of international public support

(annual average 2017 and 2018)

Climate finance contributions are sourced from Party reporting to the UNFCCC.

Bilateral, regional and other channels

Annual average contribution

No data available

Theme of support:

No data available

Multilateral climate finance contributions

No data available

Theme of support:

No data available

Core / General Contributions

Annual average contribution:

No data available

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

FINANCIAL POLICY AND REGULATION

Financial policy and regulation

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

Category	Instruments	Objective	Under Discussion/ implementation		None identified	
Green Financial Principles	n/a	This indicates political will and awareness of climate change impacts, showing where there is a general discussion about the need for aligning prudential and climate change objectives in the national financial architecture.	●			
			Mandatory	Voluntary	Under Discussion/ implementation	None identified
Enhanced supervisory review, risk disclosure and market discipline	Climate risk disclosure requirements	Disclose the climate-related risks to which financial institutions are exposed	●			
	Climate-related risk assessment and climate stress-test	Evaluate the resilience of the financial sector to climate shocks			●	
Enhanced capital and liquidity requirements	Liquidity instruments	Mitigate and prevent market illiquidity and maturity mismatch				●
	Lending limits	Limit the concentration of carbon-intensive exposures				●
		Incentivise low carbon-intensive exposures				●
	Differentiated reserve requirements	Limit misaligned incentives and channel credit to green sectors				●

In April 2020, the Bangko Sentral ng Pilipinas (BSP) issued the Sustainable Finance Framework to safeguard the financial system from evolving transition risks, including stranded fossil assets, and to value low-carbon opportunities. Under the Sustainable Finance Framework, banks will have three years to comply and integrate transition plans, with timelines, into their corporate governance and risk management framework. The Philippines central bank's framework complements the partly stranding fossil asset-induced mandatory environmental, social and governance reporting guidelines for publicly listed companies issued by the country's Securities and Exchange Commission (SEC) and which took effect on March 2019.

Moreover, the Securities and Exchange Commission (SEC) issued the ASEAN green bonds standards in 2018. The BSP and the Department of Environmental and Natural Resources of the Philippines (DENR) are members of the Sustainable Banking Network since 2013.

Nationally Determined Contribution (NDC): Finance

Conditionality	Financial resources including technology development and transfer and capacity building.
Investment needs	Defined as adequate, predictable and sustainable financing', but amount not specified.
Actions	Not mentioned.
International market mechanisms	No contribution from international credits for the achievement of the target.

ENDNOTES

For more detail on the sources and methodologies behind the calculation of the indicators displayed, please download the Technical Note at: www.climate-transparency.org/g20-climate-performance/g20report2020

- 'Land use' emissions is used here to refer to land use, land use change and forestry (LULUCF). The Climate Action Tracker (CAT) derives historical LULUCF emissions from the UNFCCC Common Reporting Format (CRF) reporting tables data converted to the categories from the IPCC 1996 guidelines, in particular separating Agriculture from Land use, land use change and forestry (LULUCF), which under the new IPCC 2006 Guidelines is integrated into Agriculture, Forestry, and Other Land Use (AFOLU).
- The 1.5°C fair-share ranges for 2030 and 2050 are drawn from the CAT, which compiles a wide range of perspectives on what is considered fair, including considerations such as responsibility, capability, and equality. Countries with 1.5°C

'fair-share' ranges reaching below zero, particularly between 2030 and 2050, are expected to achieve such strong reductions by domestic emissions reductions, supplemented by contributions to global emissions reduction efforts via, for example, international finance. On a global scale, negative emissions technologies are expected to play a role from the 2030s onwards, compensating for remaining positive emissions. The CAT's evaluation of NDCs shows the resulting temperature outcomes if all other governments were to put forward emissions reduction commitments with the same relative ambition level.

- In order to maintain comparability across all countries, this report utilises the PRIMAP year of 2017. However, note that Common Reporting Format (CRF) data is available for countries which have recently updated GHG inventories.
- The Decarbonisation Ratings assess the current year and average of the most recent five years

(where available) to take account of the different starting points of different G20 countries.

- The selection of policies rated and the assessment of 1.5°C compatibility are informed by the Paris Agreement, the IPCC's 2018 SR15 and the Climate Action Tracker (2016). The table below displays the criteria used to assess a country's policy performance.
- This indicator adds up emissions from domestic aviation and international aviation bunkers in the respective country. In this Country Profile, however, only a radiative forcing factor of 1 is assumed.
- This indicator includes only direct energy-related emissions and process emissions (Scope 1) but not indirect emissions from electricity.
- This indicator includes emissions from electricity (Scope 2) as well as direct energy-related emissions and process emissions (Scope 1).

On endnote 5.	 Low	 Medium	 High	 Frontrunner
Renewable energy in power sector	No policy to increase the share of renewables	Some policies	Policies and longer-term strategy/target to significantly increase the share of renewables	Short-term policies + long-term strategy for 100% renewables in the power sector by 2050 in place
Coal phase-out in power sector	No target or policy in place for reducing coal	Some policies	Policies + coal phase-out decided	Policies + coal phase-out date before 2030 (OECD and EU28) or 2040 (rest of the world)
Phase out fossil fuel cars	No policy for reducing emissions from light-duty vehicles	Some policies (e.g. energy/emissions performance standards or bonus/malus support)	Policies + national target to phase out fossil fuel light-duty vehicles	Policies + ban on new fossil-based light-duty vehicles by 2035 worldwide
Phase out fossil fuel heavy-duty vehicles	No policy	Some policies (e.g. energy/emissions performance standards or support)	Policies + strategy to reduce absolute emissions from freight transport	Policies + innovation strategy to phase out emissions from freight transport by 2050
Modal shift in (ground) transport	No policies	Some policies (e.g. support programmes to shift to rail or non-motorised transport)	Policies + longer-term strategy	Policies + longer-term strategy consistent with 1.5°C pathway
Near zero energy new buildings	No policies	Some policies (e.g. building codes, standards or fiscal/financial incentives for low-emissions options)	Policies + national strategy for near zero energy new buildings	Policies + national strategy for all new buildings to be near zero energy by 2020 (OECD countries) or 2025 (non-OECD countries)
Energy efficiency in industry	0-49% average score on the policy-related metrics in the ACEEE's International Energy Efficiency Scorecard	50-79% average score on the policy-related metrics in the ACEEE's International Energy Efficiency Scorecard	80-89% average score on the policy-related metrics in the ACEEE's International Energy Efficiency Scorecard	Over 90% average score on the policy-related metrics in the ACEEE's International Energy Efficiency Scorecard
Retrofitting existing buildings	No policies	Some policies (e.g. building codes, standards or fiscal/financial incentives for low-emissions options)	Policies + retrofitting strategy	Policies + strategy to achieve deep renovation rates of 5% annually (OECD) or 3% (non-OECD) by 2020
Net-zero deforestation	No policy or incentive to reduce deforestation in place	Some policies (e.g. incentives to reduce deforestation or support schemes for afforestation / reforestation in place)	Policies + national target for reaching net-zero deforestation	Policies + national target for reaching zero deforestation by 2020s or for increasing forest coverage

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