

Climate Governance

Assessment of the government's ability and readiness to transform Indonesia into a zero emissions society

CAT Climate governance series

INDONESIA

October 2019

CAT Climate Governance series

Under the Paris Agreement, governments have committed to limiting temperature increase to well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C. Achieving this objective will require global greenhouse gas emissions to peak by 2020, reduce by 45% below 2010 levels by 2030 and be reduced to net zero around 2070, with carbon emissions reaching net zero around mid-century, with negative emissions thereafter.

Governments in all countries play a critical role in enabling this transformation, which involves action from all aspects of society and the economy.

The Climate Action Tracker (CAT) tracks the progress of countries towards achieving the climate targets they have set for themselves under the Paris Agreement and what the combined effect of these commitments and policies mean for global temperature levels at the end of this century.

In this series, the CAT expands on its country analysis to evaluate the ability and readiness of national governments to enable the required economy-wide transformation towards a zero emissions society.

Our assessment analyses four aspects of governance covering key enabling factors for effective climate action:

- the political commitment of the government to decarbonisation,
- the institutional framework it has put in place to achieve its emission reduction targets,
- the processes it has established to develop, implement and review mitigation policies, and
- its ability and willingness to engage with relevant stakeholders on policy development.

Each country assessment considers the national government and one or two of the highest emitting sectors critical to achieving deep decarbonisation in the country. The first round of analysis covers **Argentina, Australia, Indonesia, Kenya, the Philippines and South Africa**.

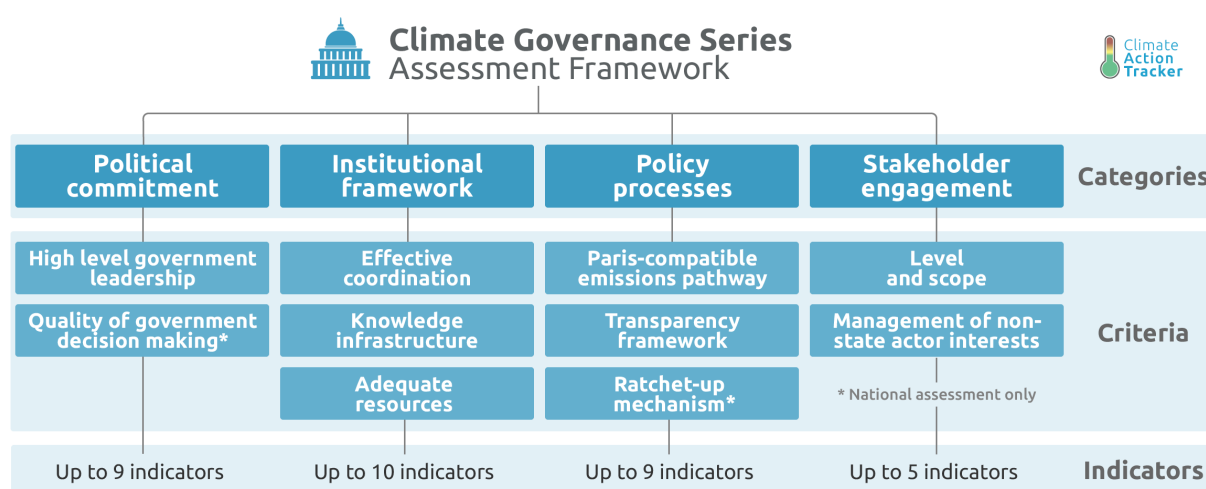
The Climate Governance Series seeks to offer a standardised and replicable approach to assessing a government's ability and readiness to achieve the required transformation, highlighting positive developments and areas for improvement. By releasing the first six country reports, the CAT aims to both generate discussion and elicit feedback on the methodology that the CAT seeks to develop further.



Legend

Understanding our indicators

This report series seeks to produce a standardised and replicable approach to assessing a country's readiness to decarbonise. To achieve this, we have assessed a number of possible indicators under four broad categories and ten **criteria**. **Criteria** are marked in bold text throughout this document. There are up to 33 indicators for national assessments and 20 for sectoral assessments.



Understanding our rating system

Our rating system highlights positive developments within countries, identifies areas of improvement, and establishes a basis on which to compare climate governance across countries.

Each individual indicator has been assessed and given a score. The categories and criteria linked to those indicators are then given a rating based on those scores.

Poor	<p>≤ 30% of possible score This rating indicates that this is an area where the government is deficient and could do much to improve.</p>
Neutral	<p>30 –70% of possible score This rating indicates that the government is showing some level of readiness to decarbonise, but improvement is still necessary.</p>
Advanced	<p>≥ 70% of possible score This rating indicates that while improvement is possible and beneficial, this area of governance is functioning relatively well.</p>

To find out more about our approach, please read our methodology paper on our website: climateactiontracker.org/publications/climate-governance-methodology.

Executive summary

🚩 National level readiness

The assessment of high-level government leadership as well as the quality of government decision making in Indonesia shows moderate political commitment to climate mitigation, but the need to scale up climate action is not a common element of the president's discourse.

While there has been continuity between various administrations regarding the general direction of climate mitigation policy, reducing greenhouse gas emissions is not a top priority and has largely focused on the forestry sector instead of on the need to decarbonise the energy system.

Coordination mechanisms do exist, but a stronger focus on climate mitigation and consistency of targets and policies across ministries is necessary. There is not a high-level focal point within all relevant line ministries. Indonesia lacks an independent institution to advise the government on decarbonisation measures and country specific analysis is not yet suited to adequately promote mitigation options.

There is significant room for improvement in Indonesia's processes for policy development, implementation and review. The government has not defined a Paris-compatible decarbonisation pathway and lacks comprehensive climate mitigation legislation. While it has established a transparency framework, it could improve on its ability to monitor progress towards its NDC and needs to introduce a ratcheting-up mechanism to scale up its ambition.

Ambitious climate policy is at risk of being undermined by the close ties between the government and the coal industry as well as the palm oil sector. Survey data suggests that more work is needed to engage the public in climate action.

Category	Criteria	Recommendations
Political commitment	High level government leadership	<ul style="list-style-type: none"> The President could strengthen his political commitment to, and prioritisation of, climate change mitigation, particularly with respect to the linkages to other national priorities (poverty, unemployment, growth, electrification of rural areas).
	Quality of government decision making	
Institutional framework	Effective coordination	<ul style="list-style-type: none"> Establish climate change units within the Ministries of Agriculture, Energy, Industry and Transport. Establish an independent entity to advise the government on decarbonisation strategies.
	Knowledge infrastructure	
	Adequate resources	
Policy processes	Paris-compatible emissions pathway	<ul style="list-style-type: none"> Define a concrete Paris-compatible 2050 decarbonisation pathway and anchor it in climate change legislation. Establish a ratcheting up mechanism to scale up climate action.
	Transparency framework	
	Ratchet-up mechanism	
Stakeholder engagement	Level and scope	<ul style="list-style-type: none"> Increase public awareness campaigns on the need for climate action. Develop a standardised framework to transparently and consistently address the influence and leverage of interest groups aligned with fossil fuel industries in climate policy and legislative processes.
	Management of non-state actor interests	

Electricity supply sector readiness

The electricity supply sector lacks strong political leadership to accelerate the share of renewable energy in the electricity generation mix and to decarbonise electricity supply, starting with phasing out coal. A focal point dedicated to climate mitigation should be established within the Ministry. Overall, the Ministry should establish decarbonisation as a top priority.

The electricity supply sector has a long way to go to establishing a robust institutional framework capable of supporting decarbonisation. The sector lacks coordination mechanisms focused on decarbonisation and the adequate resources to support the transition to zero emissions. While there is a knowledge basis to draw from, it is not fully utilised and does not focus on decarbonisation. Lack of sufficient and adequately trained staff has been identified as one impediment for expansion of renewable energy by the state-owned utility, investment targets for renewable energy have not been met and do not reflect the scale of financial investment needed to meet ambitious renewable energy targets.

The electricity supply sector is in urgent need of developing a Paris-compatible decarbonisation pathway. The foundation of a transparency framework is in place; however, improvements could be made with respect to the transparency and timeliness of reporting, with a focus on tracking progress on mitigation measures.

Ambitious renewable energy policy is at risk of being undermined by the close ties between the government and the coal mining sector as well as the state utility's focus on expanding coal-fired power generation.

Category	Criteria	Recommendations
Political commitment	High level government leadership	<ul style="list-style-type: none"> Strengthen sector leadership to support decarbonisation, including prioritising renewable energy policies and phasing out coal. Establish mandate of a climate change focal point to prioritise the mainstreaming of national climate mitigation action into sectoral plans.
	Quality of government decision making*	
Institutional framework	Effective coordination	<ul style="list-style-type: none"> Establish a climate change unit and focal point in the Energy and Mineral Resources ministry. Develop an ambitious long-term emissions reduction pathway to inform setting sectoral targets and near-term policy measures. Ensure that the relevant ministries and agencies have adequate staff and financial resources to support decarbonisation measures.
	Knowledge infrastructure	
	Adequate resources	
Policy processes	Paris-compatible emissions pathway	<ul style="list-style-type: none"> Define a Paris-compatible long-term emissions reduction pathway for the energy sector and feed it into sectoral plans, such as the electricity supply business plans (RUPTL). Continue to develop the transparency framework, with a focus on tracking progress on mitigation measures. Improve timeliness and transparency/access to data on monitoring of achievement of targets.
	Transparency framework	
	Ratchet-up* mechanism	
Stakeholder engagement	Level and scope	<ul style="list-style-type: none"> Engage stakeholders broadly at national and provincial level in developing a clear decarbonisation strategy.
	Management of non-state actor interests	

* National assessment only

Contents

Executive summary	2
1 Introduction	4
1.1 Domestic context.....	4
1.2 Approach to Climate Change.....	5
2 National assessment	7
2.1 Political commitment.....	7
2.2 Institutional Framework.....	7
2.3 Process for policy development, implementation and review.....	9
2.4 Stakeholder engagement.....	10
3 Sectoral assessment – Electricity and heating	12
3.1 Political commitment.....	12
3.2 Institutional Framework.....	12
3.3 Process for policy development, implementation and review.....	13
3.4 Stakeholder engagement.....	14
Authors	16
References	17

1 Introduction

1.1 Domestic context

Indonesia is the fourth most populous country in the world with over 260 million people (World Bank, 2019b). It is considered to be a middle power in Asia (Lowy Institute, 2019). Joko Widodo ('Jokowi') was elected President of the Republic in 2014 and re-elected in April 2019. He will serve until 2024 as, under the 1945 Constitution, the President is limited to two five-year terms in office (Republic of Indonesia, 1945).

Indonesia is a middle-income country (World Bank, 2019a). It is the world's 16th largest economy, 10th if one considers purchasing power, and is the largest economy in Southeast Asia (World Bank, 2019a, 2019b). In 2018, its GDP was 1.042 trillion USD (World Bank, 2019b).

In the last two decades, Indonesia has increased its per capita income, reduced extreme poverty and substantially improved its development indicators. Ambitious government policies to extend electricity access in the last decades have resulted in an almost universal access to electricity despite fast population growth in the same period. Population growth and development needs are likely to see energy consumption continue to grow at a rapid pace. The path that Indonesia chooses to address the growing energy demand has important implications for the global efforts to achieve the Paris Agreement long-term temperature goal (Climate Analytics, 2019).

Forestry and agriculture are of large economic interest for Indonesia, contributing to approximately 14% of the country's GDP and employing around 33 million people (27% of the working population) (Climate Action Tracker, n.d.). Forestry is the largest source of greenhouse gas emissions (66%), and emissions are increasing, in large part due to the rapid growth of palm oil plantations (Climate Action Tracker, n.d.).

The focus in climate policy is forestry, where Indonesia aims to meet a large share of around 60% of its commitments through emissions reductions. This means that other sectors will see substantially lower relative reductions of emissions below business as usual. Indonesia is still expanding investment in coal-fired power generation and planning more addition of coal-fired power than of renewable energy: this is at odds with what is needed under the Paris Agreement (Climate Action Tracker, 2019). This dependence on coal impedes Indonesia's transition to renewable energy system and the utilisation of its vast renewable energy potential (Climate Action Tracker, n.d.; Climate Analytics, 2019).

Indonesia exports coal, gas, and oil, as well as palm oil. Palm oil and coal are particularly important commodities: Indonesia is the world's biggest palm oil producer and also the one of the world biggest coal exporters, and has been a net importer of oil since 2006. To shore up softening global demand, the government has sought to promote domestic coal use.

Jakarta had the worst air quality in Southeast Asia in 2018, ranking 10th globally (IQAir AirVisual, n.d.). As a whole, Indonesia was the 11th country with the worst air quality and citizens sued the government in July 2019 over this issue (IQAir AirVisual, n.d.; Jong, 2019b; Walton, 2019). Environmentalists argue that the surrounding coal plants contribute to the low air quality and have undertaken a court challenge over the expansion of a coal-fired power plant - due to its contribution to climate change (Argawa, 2019; Sabin Center for Climate Change Law, 2018; Taylor, 2018).

1.2 Approach to Climate Change

The following table gives an overview of key institutions, strategies, targets, as well as legislation, that refers to climate change mitigation at national level, as well as sectoral level for the selected sector (electricity supply).

 <p>Key Institutions</p>	<p>National agencies</p> <p>Directorate General of Climate Change Direktorat Jenderal Pengendalian Perubahan Iklim (DJPP) The DJPP is the lead agency for the development and implementation of climate policy in Indonesia. It is housed within the Ministry of Environment and Forestry (Kementerian Lingkungan Hidup dan Kehutanan).</p> <hr/> <p>Sectoral lead agencies</p> <p>Ministry of Energy and Mineral Resources Kementerian Energi Dan Sumber Daya Mineral (ESDM) The Ministry formulates and implements energy policy. The Directorate General of New, Renewable Energy and Energy Conservation (Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi), housed within the Ministry, focuses on renewable energy and energy conservation policy development and implementation.</p>
 <p>Key Plans & Strategies</p>	<p>National level</p> <p>National Action Plan to Reduce GHG emissions Rencana Aksi Nasional Penurunan Emisi Gas Rumah Kaca (RAN-GRK) The Plan sets out the emission reduction strategy to achieve Indonesia's 2020 target.</p> <p>National Medium-Term Development Plan 2020-2024 Rencana Pembangunan Jangka Menengah Nasional (RPJMN) This Plan is still under development; however, it will set out the development goals for the next five years and inform the plans developed by the respective Ministers. Indonesia has committed to making this Plan a low carbon one.</p> <hr/> <p>Sectoral level</p> <p>National Energy Policy (Kebijakan Energi Nasional (KEN)) <i>Government Regulation (Peraturan Pemerintah) No. 79/2014</i> The Policy established a number of energy targets for 2025 and 2050, including for new and renewable energy and coal.</p> <p>National Energy Plan (Rencana Umum Energi Nasional (RUEN)) <i>Presidential Regulation (Peraturan Presiden) No. 22/2017</i> The National Energy Plan implements the National Energy Policy.</p> <p>Electricity Supply Business Plan (Rencana Usaha Penyediaan Tenaga Listrik (RUPTL)) The Plan is developed by the state-owned utility PLN and outlines the development plans for electricity supply over the next decade. It is updated annually and approved by the Minister.</p>
 <p>Pledges & Targets</p>	<p>National level</p> <p>Nationally Determined Contribution (NDC) Unconditional target of a 29% reduction below business-as-usual (BAU) by 2030 including LULUCF (16% below BAU excluding LULUCF).</p> <p>A reduction of up to 41% below BAU including LULUCF (20-24% excluding LULUCF) is conditional on international support.</p> <hr/> <p>Sectoral level</p> <p>2025 and 2050 Renewable Energy Targets 23% of total primary energy supply (TPES) should be from new and renewable energy by 2025, increasing to 31% by 2050.</p>



Key Laws & Regulations

National level

National Greenhouse Gas Inventory Management and Reporting Guidelines *Pedoman Penyelenggaraan dan Pelaporan Inventarisasi Gas Rumah Kaca Nasional*

Ministerial Regulation P.73/Menlhk/Setjen/Kum/1/12/2017

Guidelines for the management and reporting of the national GHG inventory.

Guidelines for Measuring, Reporting and Verification of Climate Actions and Support

Pedoman Pelaksanaan Pengukuran, Pelaporan Dan Verifikasi Aksi Dan Sumberdaya Pengendalian Perubahkan Iklim

Ministerial Regulation No. P.72/Menlhk/Setjen/Kum.1/12/2017

Regulations outlining the measuring, reporting and verification of climate mitigation and adaptation measures as well as support.

Management of the National Registration System for Climate Action

Penyelenggaraan Sistem Registri Nasional Pengendalian Perubaham Iklim

Ministerial Regulation No. P.71/MENLHK/SETJEN/KUM.1/12/2017

Regulations establishing a national registry, in the form of a web platform, to provide information and data on Indonesia's mitigation and adaptation activities.

Monitoring the Implementation of the Nationally Determined Contribution (NDC)

Pemantuan Implementasi Kontribusi Yang Ditetapkan Secara Nasional

Ministerial Decree No. SK.679/Menlhk/Setjen/Kum.1/12/2017

The Decree establishes a Steering Committee and Technical Team to monitor the progress on implementing Indonesia's NDC.

Sectoral level

See Sectoral Plans & Strategies (above).

2 National assessment

2.1 Political commitment

Political commitment

High level government leadership

Quality of government decision making

The assessment of high-level government leadership as well as the quality of government decision making in Indonesia shows moderate political commitment to climate mitigation, but the need to scale up climate action is not a common element of the president's discourse. While there has been continuity between various administrations regarding the general direction of climate mitigation policy, reducing greenhouse gas emissions is not a top priority and has largely focused on the forestry sector instead of on the need to decarbonise the energy system.

High-level government leadership can be a driving force for stimulating economy-wide transformational changes and increasing climate mitigation ambition through top-down strategy setting and sending effective policy signals. The President of Indonesia, Joko Widodo ("Jokowi"), is generally considered to be supportive of climate mitigation (Bridle et al., 2018; Mersmann et al., 2017). He has spoken about the importance of addressing climate change at international fora, both in joint statements with other heads of state, and domestically (Achmad Dwi Afriyadi, 2019; Ardern & Widodo, 2018; Widodo, 2018; Widodo & Modi, 2018).

While climate mitigation is an important issue for the President and government, it is not a priority. Climate mitigation is not one of the President's three priority programmes, nor has he mentioned the need to reduce carbon emissions in his annual address to a joint session of Parliament since 2015 (Kantor Staf Presiden, 2019; Widodo, 2015, 2019). Climate mitigation objectives are seen to compete with other government priorities, like achieving universal electrification as quickly as possible or keeping electricity costs low (Bridle et al., 2018; Dewan Energi Nasional, 2018d). The issue was largely absent from this year's Presidential election (Golongan Hutan, 2019; Jong, 2019a; Villadiego, 2019). While climate change was included in its campaign material for a seat on the UN Security Council in 2019-2020, it is no longer mentioned on the Ministry of Foreign Affairs website (Kementerian Luar Negeri, 2019; Republic of Indonesia, 2017a).

There is limited evidence to suggest broad scale buy-in and ownership of climate-related activities across government or a high degree of influence on government-decision making by the lead agency. The Directorate General of Climate Change (DJPP) is the lead agency in Indonesia and is tasked with overseeing climate change policy development and implementation (Direktorat Jenderal & Pengendalian Perubahan Iklim, n.d.). It is a working unit of the Ministry of Environment and Forestry.

There is no dedicated senior cabinet level official for domestic climate policy. The President does have a Special Envoy on Climate Change; however, the focus of the Envoy's work is on representing Indonesia internationally, rather than ensuring the implementation of domestic action. The Minister of Environment and Forestry jointly leads the Strategic Coordination Team for Climate Change along with the Minister of National Development Planning, while the Director General of Climate Change is the co-deputy chair (Menteri Perencanaan Pembangunan Nasional, 2017a). It is difficult to assess the influence of the Environment Ministry.

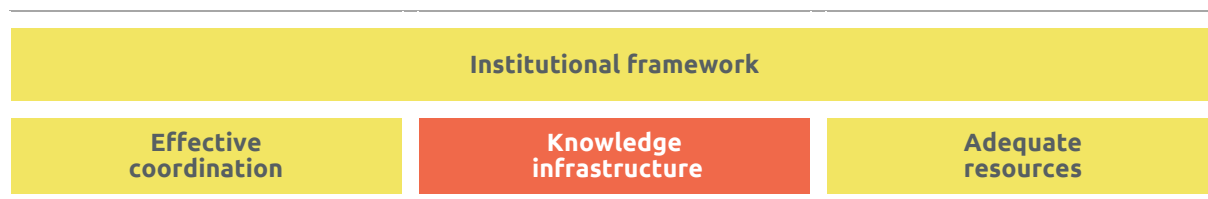
The **quality of government decision making** at the highest levels is a key factor in implementing ambitious climate policies as national governments provide resources and direction for lower levels of government and can stimulate horizontal dynamics through mainstreaming, lesson-drawing and cooperation (Jänicke, Schreurs, & Töpfer, 2015).

There is continuity between governments on the general direction of climate mitigation policy. Indonesia's 2020 emissions target of 26% below business-as-usual (BAU) was formulated under the

former President Susilo Bambang Yudhoyono (Republic of Indonesia, 2016). Its 2030 target of 29% below BAU was adopted under current President Jokowi. Both have a conditional target of 41% below BAU, contingent on support. The National Energy Policy was adopted by Yudhoyono just prior to leaving office and operationalised under Jokowi (Republic of Indonesia, 2014, 2017b). Jokowi has also extended the moratorium on new licenses in forest and peatland areas that began under SBY (Reuters, 2017).

The institutional structure governing Indonesia’s climate change activities underwent significant changes in 2015; however, it is difficult to assess whether this change has affected the capacity to act in key agencies.

2.2 Institutional Framework



Coordination mechanisms do exist, but a stronger focus on climate mitigation and consistency of targets and policies across ministries is necessary. There is not a high-level focal point within all relevant line ministries. Indonesia lacks an independent institution to advise the government on decarbonisation measures and country specific analysis is not yet suited to adequately promote mitigation options.

Effective coordination across ministries and agencies as well as with sub-national governments affects the ability of actors to align overarching climate policy targets efficiently and consistently.

Indonesia has mechanisms in place to coordinate action amongst line ministries. However, there is not a high-level focal point within all relevant line ministries. The Strategic Coordination Team for Climate Change was established in 2017 (Menteri Perencanaan Pembangunan Nasional, 2017b). The Ministers of National Development Planning, and Environment and Forestry lead the steering committee and its members include representatives from various line ministries. Several sector-specific working groups have also been established. At present, these groups are tasked with coordinating efforts to achieve the necessary emissions reductions to reach the 2020, but not 2030 goal. The Environment, Finance and Planning ministries all have climate change units (Direktorat Jenderal & Pengendalian Perubahan Iklim, n.d.; Kementerian Perencanaan Pembangunan Nasional, 2012; Pusat Kebijakan Pembiayaan Perubahan Iklim dan Multilateral, n.d.). The Ministries of Agriculture, Energy, Industry and Transport do not, which indicates a selective focus of climate policy in particular on forestry, but not on decarbonising the energy system (Kementerian Energi Dan Sumber Daya Mineral, n.d.; Kementerian Perhubungan, n.d.; Kementerian Perindustrian, n.d.; Kementerian Pertanian, n.d.). However, several departments handle climate related matters. The former Vice President of Indonesia, Honorable Boediono, noted in a recent report that the full participation of all branches of government was needed in order to achieve low carbon development (Kementerian PPN/Bappenas, 2019a).

The planning process within Indonesia is highly structured, but lacks alignment of sectoral planning with decarbonisation. A national 20-year plan is developed from which four five-year plans are derived (National Medium-Term Development Plan or RPJMN). Each Ministry develops its own five-year plan based on the national plan. Annual work plans and budget are aligned with these medium-term plans. Indonesia has committed to making its next five-year development plan (the National Medium-Term Development Plan (RPJMN) for 2020-2024) a low-carbon one (New Climate Economy, 2017). However, the technical analysis available to support this plan calls into questions whether that objective will be achieved (Kementerian PPN/Bappenas, 2019a, 2019b).

Another important criterion is the existence and use of **knowledge infrastructure capable of supporting strategic planning and policy development**, as this aids in the elaboration and application of decarbonisation analyses in climate policy development.

Indonesia lacks an independent institution to advise the government on decarbonisation measures. Apart from older country-specific analysis to support decarbonisation published by international institutes (SDSN & IDDRI, 2015), the recent report on low carbon development released by the Planning Agency BAPPENAS (see below section 2.3) does not go beyond existing targets in its core scenarios (Kementerian PPN/Bappenas, 2019a). This is not sufficient country specific analysis suitable to adequately promote climate change relevant NDC ambition.

Capital and resource constraints are significant barriers to effective climate governance and has been an impediment for developing countries in the past (Bhave, Conway, Dessai, & Stainforth, 2016). **Adequate resources and capacities** should be made available to implementers and efficiently used by them in climate policy processes. The Directorate General of Climate Change (DJPPPI), Indonesia’s lead agency for overseeing the implementation of climate policy, has more than 200 staff members (Direktorat Jeneral Pengendalian Perubahan Iklim, 2019). 71% of the staff have university-level qualifications, including 32% with graduate-level degrees. The Directorate General of Climate Change Control’s budget for 2019 is 297 billion IDR (around US\$ 21 million) (Republic of Indonesia, 2018).

2.3 Process for policy development, implementation and review



There is significant room for improvement in Indonesia’s processes for policy development, implementation and review. The government has not defined a Paris-compatible decarbonisation pathway and lacks comprehensive climate related legislation. While it has established a transparency framework, it could improve on its ability to monitor progress towards its NDC and needs to introduce a ratcheting-up mechanism to scale up its ambition.

A **defined Paris-compatible decarbonisation pathway** is an important component to aid the long-term planning for, and alignment with, the Paris Agreement’s overall objectives.

Indonesia has a long way to go to define a Paris-compatible decarbonisation pathway. The technical report, released in March 2019 as part of the 2020-2024 National Medium-Term Development Plan (RPJMN) preparation process, contained three long-term scenarios to 2045 (Kementerian PPN/Bappenas, 2019a).

The two core scenarios do not go beyond existing targets. The “moderate scenario” would achieve the unconditional NDC, but would fall short of the existing renewable energy targets. The “high scenario” would achieve the conditional NDC and a 30% renewable energy target in 2045.

To put these two scenarios in context, consider that the International Renewable Energy Agency (IRENA) has found that Indonesia could achieve its 2050 renewable energy target by 2030 and the Climate Action Tracker has found that Indonesia will overachieve its NDC target for the sectors excluding the forestry sector, without any additional effort (Climate Action Tracker, 2019; IRENA, 2017).

Only the additional “Plus” scenario, which assumes additional policies after 2024, goes beyond existing targets. In this scenario, Indonesia would overachieve its conditional 2030 NDC and achieve a 75% reduction in emissions in 2045 (including LULUCF), compared to a business-as-usual trajectory.

A further technical study for the 2020-2024 plan, released in August 2019, appears to only contain the ‘moderate scenario’, now referred to as the ‘fair’ scenario (Kementerian PPN/Bappenas, 2019b). Under the ‘fair’ scenario, GHG emissions would be 27.3% below BAU in 2024. The scenario appears to be consistent with the current unconditional NDC and would not be consistent with low carbon development.

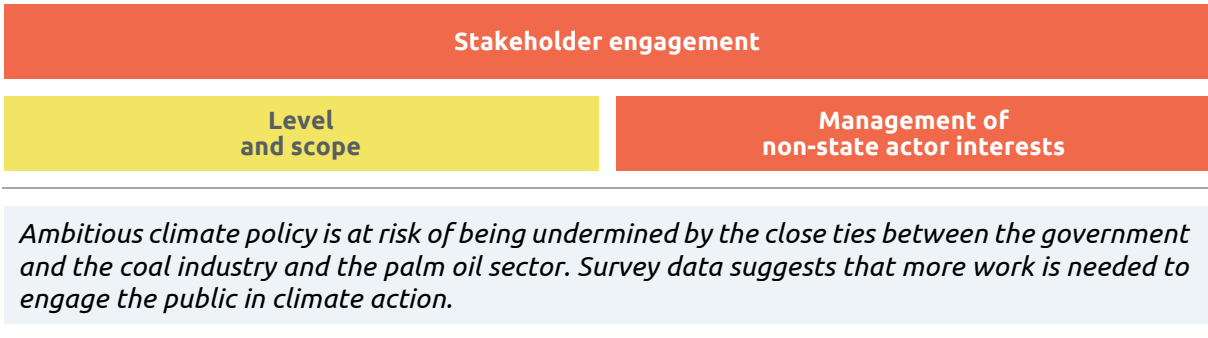
Indonesia has not enshrined its 2030 emission reduction targets into law; however, it has adopted several regulations on forests, energy and climate (Kementerian Hukum dan HAM RI, n.d.).

An **enhanced transparency framework mechanism** is necessary in order to track progress towards achieving emission reduction targets in line with the Paris Agreement, as well as providing checks and balances for the government’s climate commitments.

Indonesia’s transparency framework is comprehensive in its scope; however, statutory reporting deadlines have not been established (Menteri LHK, 2017c, 2017b, 2017a, 2017d). The Directorate General of Climate Change (DJPP) has launched two websites to support access to information: SIGN SMART for GHG emissions data and SRN for information on mitigation actions and support (Direktorat Jenderal Pengendalian Perubahan Iklim, n.d.-a, n.d.-b). An inter-ministerial committee has been established to monitor progress towards Indonesia’s NDC, but it is not financially or institutionally independent (Menteri LHK, 2017c). No formal mechanism to ratchet-up ambition has been established.

The Directorate General of Climate Change has noted the importance of the **ratchet up mechanism** in the Paris Agreement; however, current regulations focus on tracking progress in implementing the NDC (Direktorat Jenderal Pengendalian Perubahan Iklim, 2016; Menteri LHK, 2017c). There does not appear to be any plan to establish a ratchet up mechanism at this time.

2.4 Stakeholder engagement



The **management of non-state actor interests** is another important consideration, as it depicts whether governments have succeeded in addressing resistance created by vested interests as well as engaging the public and stakeholders with ambitious climate mitigation policy.

Ambitious climate policy is at risk of being undermined by the close ties between the government and both the coal industry and the palm oil sector. Analysis by JATAM, a network of mining advocacy NGOs, revealed that both teams in the recent presidential elections had connections to mining and energy interests (JATAM, 2019). It has also been established that high ranking government officials have financial ties to the coal mining sector (Global Witness, 2019; Greenpeace, JATAM, ICW, & auriga, 2018). Some analysts suggest that the considerable subsidies received by the coal sector are evidence of its lobbying ability and influence (Bridle et al., 2018). The palm oil sector has successfully been able to frame palm oil development as a national issue and has secured political support at the highest levels (Choiruzzad, 2019). Palm oil expansion has been a significant driver of GHG emissions in the past and may continue to be a source of emissions without strong forest governance (Climate Action Tracker, n.d.; ICCT, 2016; Sumarga & Hein, 2016).

The government’s **level and scope of engagement** with stakeholders reflects how well they are aware of external knowledge and the expectations of their constituents which, in turn, affects the ability for sound government decision-making.

The survey data suggests that more work is needed to engage the public in climate action. According to one global survey, more people in Indonesia (18%) doubt that climate change is man-

made than any other country in the world (Heriyanto, 2019). A further 6% do not think the climate is changing at all. Commentators attributed the result in part to a lack of environmental awareness and the inability to make climate change relevant to people's everyday lives (Renaldi, 2019; Villadiego, 2019). Another global survey found that 24% of Indonesians do not think global climate change is a threat or do not know, numbers that have increased since the survey was first conducted in 2013 (Poushter & Huang, 2019). More than half of respondents did think global climate change was a major threat to Indonesia, though other global threats (ISIS, the global economy and North Korea's nuclear programme) were seen as more pressing concerns. The DJPPI runs a climate change knowledge centre website focused on disseminating information about climate change to the general public (Direktorat Jenderal Pengendalian Perubahan Iklim, 2017).

The government does engage with stakeholders, but information on these consultations is not centralised (Kementerian PPN/Bappenas, 2019a; Republic of Indonesia, 2016).

3 Sectoral assessment – Electricity

3.1 Political commitment

Political commitment

High level government leadership

Quality of government decision making*

The electricity supply sector lacks strong political leadership to accelerate the share of renewable energy in the electricity generation mix and to decarbonise electricity supply, starting with phasing out coal. A focal point dedicated to climate mitigation should be established within the Ministry. Overall, the Ministry should establish decarbonisation as a top priority.

* Not rated under sectoral assessments

High-level sector leadership in the electricity sector is integral to ensure prioritisation of resources towards integrating top-down national policy signals with long-term sectoral planning.

The electricity supply sector lacks strong political leadership to accelerate the share of renewable energy in the electricity generation mix and to decarbonise electricity supply, starting with phasing out coal. The relevant line ministry is the Ministry of Energy and Mineral Resources (ESDM). Minister Jonan of ESDM believes that the 2025 target to derive 23% of the nation's energy from renewable energy will be difficult to achieve (Afriyadi, 2019; Arvirianty, 2019).¹ Discussion of climate mitigation policies and the need to increase ambition is not commonplace. Analysts suggest that the current Minister is less supportive of renewable energy than his predecessor, who oversaw the adoption of generous feed-in tariffs (Bridle et al., 2018).

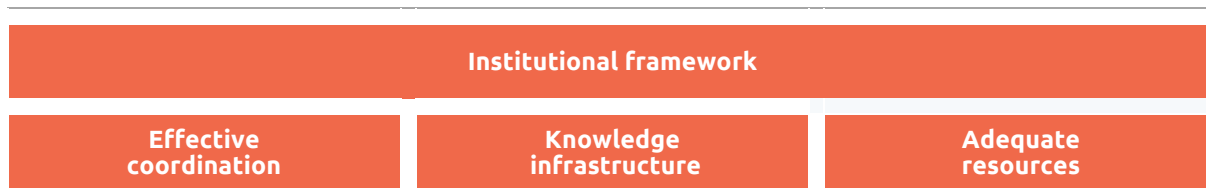
The Ministry of Energy and Mineral Resources does not have a climate change focal point (Kementerian Energi Dan Sumber Daya Mineral, n.d.). However, it does have a unit working on renewable energy - the Directorate General of New and Renewable Energy and Energy Conservation (EBTKE).

The Ministry of Energy and Mineral Resources' five-year strategic plan has renewable energy and GHG emissions reduction targets (Republic of Indonesia, 2015). However, the plan also has targets that run counter to climate mitigation objectives including expanding the domestic use of coal. News bulletins about National Energy Council (DEN) meetings on electricity do not often mention renewable energy or the need to decarbonise (Dewan Energi Nasional, 2018d, 2018b).

The Secretary General of the National Energy Council has noted the continued importance of coal to meet Indonesia's energy demand, while the Minister of Energy and Mineral Resources has stressed the importance of meeting the electrification goal (Dewan Energi Nasional, 2018a, 2018d). Renewable energy could contribute to that objective, but diesel generators are the preferred choice (Bridle et al., 2018). Government actions and policies prioritise maintaining low electricity prices and limiting the amount spent on subsidising electricity over policies that would do the most to promote renewable energy (Bridle et al., 2018; IESR, 2018).

¹ The President has appointed a new Energy Minister as part of his second-term Cabinet (Gorbiano, 2019).

3.2 Institutional Framework



The electricity supply sector has a long way to go to establishing a robust institutional framework capable of supporting decarbonisation. The sector lacks coordination mechanisms focused on decarbonisation and the adequate resources to support the transition to zero emissions. While there is a knowledge basis to draw from, it is not fully utilised and does not focus on decarbonisation. Lack of sufficient and adequately trained staff has been identified as one impediment for expansion of renewable energy by the state-owned utility, investment targets for renewable energy have not been met and do not reflect the scale of financial investment needed to meet ambitious renewable energy targets.

Effectiveness of coordination of policy actions between the various sector-specific agencies is an essential cornerstone to implementing national policy priorities in a resource-efficient manner.

Intra-sectoral coordination is limited and without a focus on decarbonisation. The National Energy Council is responsible for setting long-term energy policy and is comprised of the relevant line ministers and stakeholders, and led by the President (Dewan Energi Nasional, 2016). In February 2019, the Ministry of National Development Planning (BAPPENAS) established a Strategic Coordinating Team for the Acceleration of New and Renewable Energy Development in Indonesia (*Tim Koordinasi Strategis Percepatan Pembangunan Energi Baru dan Terbarukan di Indonesia*), with representation from a number of Ministries and government agencies including Planning, Energy, and the Environment (Menteri Perencanaan Pembangunan Nasional, 2019).

Sectoral plans are not consistent with a decarbonisation pathway. The current Electricity Supply Business Plan 2019-2028 (RUPTL) is inconsistent with a decarbonisation pathway as it includes significant additional power generation from coal (Climate Action Tracker, 2019; Republic of Indonesia, 2019). Indonesia's biofuel blending targets are very ambitious, including for electricity supply; however, there are concerns that without a strong regulatory and governance framework this could increase GHG emissions due to deforestation and peatland clearance in order to grow palm oil crops (Climate Action Tracker, n.d., 2019).

The existence of a **knowledge infrastructure capable of supporting strategic planning and policy development** is an important precondition to generate climate relevant and sector specific analyses.

While there is a knowledge basis, including publications in Indonesian, however there is no focus on supporting the decarbonisation of electricity production and no evidence of consideration of decarbonisation analyses and advice into policy development processes.

There is international decarbonisation scenario work for the energy sector, analysis of how to accelerate the uptake of renewable energy by 2030, as well as analysis of the energy sector's contribution to achieving Indonesia's NDC (Climate Action Tracker, n.d.; IESR, 2019; IRENA, 2017; SDSN & IDDRI, 2015; Wijaya et al., 2017). There are also available policy design tools for the energy sector and analysis of the fiscal aspects of supporting renewable energy (Braithwaite & Gerasimchuk, 2019a, 2019b; Centre of Climate Change Financing and Multilateral Policy, 2015; Energy Innovation, IESR, WRI, WRI Indonesia, & OCN, 2019; Low Carbon Support Programme, 2015; Rissman & Chrysolite, 2017). Since 2009, the Agency for the Assessment and Application of Technology (BPPT – Badan Pengkajian dan Penerapan Teknologi), a branch of the Ministry of Research and Technology, has published the Indonesia Energy Outlook (BPPT, n.d.). Each report looks at the current state of play in the energy sector, long-term trends as well as thematic elements, often with a climate mitigation focus.

The **adequacy of resources and capacity** is critical for effectively planning and executing sectoral policy decisions.

The lack of sufficient and adequately-trained staff has been identified as an impediment to any major expansion of renewable energy by the state-owned utility (PLN) (Bridle et al., 2018). The 2018 budget requested by the state-owned utility (PLN) for IDR 1.3 trillion (USD 92 million) in renewable energy subsidies was rejected (Bridle et al., 2018). Furthermore, the overall investment targets set by the Ministry for the renewable sector have not been met, nor do these investment goals reflect the scale of financial investment needed to meet ambitious renewable targets (IRENA, 2017; Kementerian ESDM, 2018c).

3.3 Process for policy development, implementation and review



The electricity supply sector is in urgent need of developing a Paris-compatible decarbonisation pathway. The foundation of a transparency framework is in place; however, improvements could be made with respect to the transparency and timeliness of reporting, with a focus on tracking progress on mitigation measures.

** Not rated under sectoral assessments*

Similar to the national level assessment, a defined **Paris-compatible decarbonisation pathway** is essential to aligning sectoral policy processes with international long-term climate goals.

Indonesia has a significant amount of work to do to define a Paris-compatible pathway for the electricity generation. The National Energy Policy establishes a target where 31% of total primary energy supply should be provided by new and renewable energy in 2050 (Republic of Indonesia, 2014, 2017b). This target, and its implications for the extent of renewable electricity generation required by 2050, are not ambitious and not in line with the Paris Agreement (Climate Action Tracker, n.d.; Climate Analytics, 2019; IRENA, 2017; SDSN & IDDRI, 2015). While some plans have considered the implications of long-term targets on near-term activities, overall little attention is paid to backcasting and consistency with the Paris Agreement (Kementerian PPN/Bappenas, 2019a).

A mandatory **enhanced transparency framework** provides accountability to the sector. The foundation of a framework is in place; however, improvements could be made with respect to the transparency and timeliness of reporting. Electricity sector emissions are included in the national inventory. The Ministry of Energy and Mineral Resources has also published a GHG inventory for the energy (Kementerian ESDM, 2016). In 2018, the Directorate General of Electricity developed guidelines for GHG emissions reporting from the electricity sector and launched a website to assist with GHG emissions reporting from the electricity sector (Kementerian ESDM, 2018a).

The Directorate General of New and Renewable Energy and Energy Conservation (EBTKE) publishes annual performance reports, which include tracking progress towards various mitigation-related objectives, like installed capacity targets for renewable energy, but these reports are not made publicly available in a timely manner (Kementerian ESDM, 2019a, 2019b). These reports do not present information in a manner that facilitates tracking progress with respect to the Ministry’s five-year Strategic Plan (Renstra KESDM 2015-2019), nor changes made to those targets (Kementerian ESDM, 2017, 2018c). More broadly, analysts have noted that the ability to track progress is limited by inconsistencies in the data published by different directorates within the Ministry, and that the data that is available is not easily accessible online or timely (IESR, 2018).

3.4 Stakeholder engagement

Stakeholder engagement	
Level and scope	Management of non-state actor interests
<p><i>Adequate renewable energy policy is at risk of being undermined by the close ties between the government and the coal mining sector as well as the state utility's focus on expanding coal fired power generation. Many government policies and actions are favourable to the interests of actors at risk of climate mitigation policy, including the continuation of considerable fossil fuel subsidies, revision of the caps on coal production and plans for further coal generating capacity.</i></p>	

The **level and scope of stakeholder engagement** is essential to developing low carbon sectoral roadmaps that foster high levels of collaboration throughout all levels of society. The Ministry and the National Energy Council (DEN), which develops the country's long-term energy strategy, have some mechanisms to engage with stakeholders (Dewan Energi Nasional, 2016, 2018e, 2018c; Kementerian ESDM, 2018b).

The **management of non-state actor interests** is also of vital importance to increasing support for climate policies in the sector and ensure policy continuity. Ambitious renewable energy policy is at risk of being undermined by the close ties between the government and the coal mining sector as well as the state utility's focus on expanding coal-fired power generation. Many government policies and actions are favourable to the interests of actors at risk of climate mitigation policy, including the continuation of considerable fossil fuel subsidies, revision of the caps on coal production and plans to build further coal generating capacity (Bridle et al., 2018; Leonard, 2019; Republic of Indonesia, 2019).

The influence of those who stand to benefit from ambitious renewable energy policies is harder to gauge. The 2025 new and renewable energy goal is positive for the sector and has industry support (Effendi, n.d.). There are examples of industry groups achieving sought-after regulatory change, however there remain several regulations that are not favourable to the renewable energy expansion (Bridle et al., 2018; PABUMNews, 2017). For example, the rooftop solar regulations issued at the end of 2018 were not as supportive as they could have been for accelerating the uptake of that technology (IESR, 2018).

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The Climate Action Tracker (CAT) is an independent scientific analysis produced by three research organisations tracking climate action since 2009. We track progress towards the globally agreed aim of holding warming well below 2°C, and pursuing efforts to limit warming to 1.5°C.

The CAT consortium



NewClimate Institute is a non-profit institute established in 2014. NewClimate Institute supports research and implementation of action against climate change around the globe, covering the topics international climate negotiations, tracking climate action, climate and development, climate finance and carbon market mechanisms. NewClimate Institute aims at connecting up-to-date research with the real world decision making processes.

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Climate Analytics is a non-profit climate science and policy institute based in Berlin, Germany with offices in New York, USA, Lomé, Togo and Perth, Australia, which brings together interdisciplinary expertise in the scientific and policy aspects of climate change. Climate Analytics aims to synthesise and advance scientific knowledge in the area of climate, and by linking scientific and policy analysis provide state-of-the-art solutions to global and national climate change policy challenges.

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