

Climate Governance

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

CAT Climate governance series

INDONESIA

October 2021

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.

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.

Since 2019, we have been expanding the scope of our coverage. All country profiles are available on **our website**.

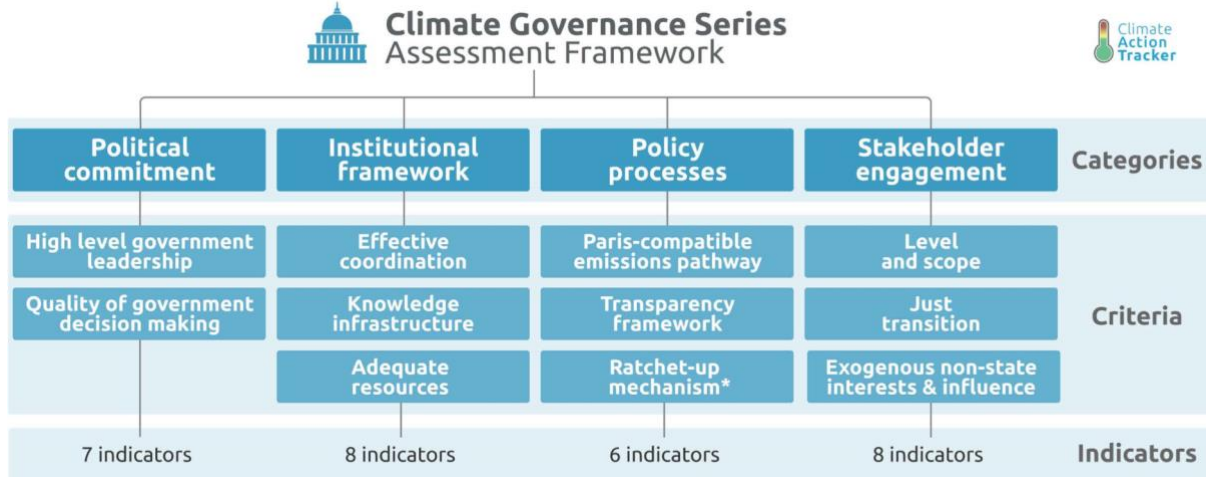


<http://climateactiontracker.org/publications/climate-governance>

Legend

Understanding our indicators

This report series seeks to produce a standardised and replicable approach to assessing a country's readiness to transition to a zero emissions society. To achieve this, we have assessed a number of possible indicators under four broad categories and eleven criteria. **Criteria** are marked in bold text throughout this document.



Notwithstanding the desire for standardising, our framework is a living document and we occasionally revise the number and make of indicators. For complete details, see our methodology page.

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.

Very Poor	<p>≤ 20% of possible score This rating indicates that the government is deficient and improvement is necessary.</p>
Poor	<p>20 – 40% of possible score This rating indicates that the government is showing a limited level of readiness but improvement is still necessary.</p>
Neutral	<p>40 – 60% of possible score This rating indicates that the government is showing some level of readiness, but improvement is still necessary.</p>
Acceptable	<p>60 – 80% of possible score This rating indicates that the government is showing a good level of readiness, although improvement is still possible.</p>
Advanced	<p>≥ 80% of possible score This rating indicates that the government is performing well, although improvement is still possible and beneficial.</p>

Executive summary

🚩 National level readiness

Indonesia has a complex governance structure that sends mixed signals with regards to the transition towards net zero emissions. Positive signals especially in the last year demonstrate progress in the setting of climate governance structure and in the creation of an enabling environment to support sectoral transitions towards net zero emissions. Nevertheless, the overall assessment of Indonesia's governance structure falls short as can be observed in our assessment below – Indonesia scores red on the majority of governance categories and indicators.

While Indonesian President Joko Widodo is showing some commitment to act upon climate change on the international stage, his government's policies do not support his statements. The rolling back of existing climate policies, notably through the enactment of the omnibus law on job creation or the revision of the law on Mineral and Coal Mining (Minerba), highlight a lack of political commitment, accountability and trustworthiness for transition-related policies towards net zero emissions.

The Ministry of Environment and Forestry hosts the Directorate General of Climate Change, the official focal point of climate change policy planning but it has limited influence on climate action and sectoral plans as line ministries oftentimes act independently.

Indonesia's national planning agency, Bappenas, coordinates planning and policy development amongst ministries as well as amongst provinces. Notably, Bappenas has translated the national climate mitigation target into sector-level mid-term targets and policies collectively reaching an emissions reduction of more than 27%, and pursues the development of Regional Low-Carbon Development Plans (RPRKD).

Despite coordination efforts, the transition to net zero emissions is not sufficiently considered in line ministries and current policies more prominently encourage deforestation, most notably through the palm oil industry, as well as the significant expansion of coal both for export and domestic consumption. Despite the existing knowledge infrastructure, the government lags on the consideration of the outcomes of technical analyses, suggesting that decisions are politically-driven rather than informed by country-specific technical evidence.

Indonesia has put in place key climate legislation as early as 2007. The Directorate General of Climate Change submitted an updated NDC to the UNFCCC but did not increase the ambition of its climate target, thus disregarding the ratchet-up mechanism of the Paris Agreement.

The Directorate General of Climate Change also submitted a Long-term low greenhouse gas emissions development strategy (LTS) in parallel to the updated NDC. The most ambitious pathway of the LTS, the Paris Agreement compatible emissions pathway, would lead to net zero emissions by '2060 or sooner'. However, the government has not officially endorsed that pathway nor a net zero target and the proposed pathway appears to ignore the evidence from Bappenas that an emissions reduction pathway leading to net zero emissions by 2045 would be economically and socially more beneficial to the country.

There are mixed signals on the level and scope of engagement with stakeholders, as a fifth of the population does not believe in climate change but experts and civil society advocate for more ambitious climate action. The government has engaged with non-state actors to develop climate plans, but the extent to which stakeholders are represented in these processes and influence policy-making is unclear.

Indonesia has no formal strategy or body to ensure an economy-wide just transition. For example, Indonesia fails to consider a shift away from fossil fuel production. Stakeholders at risk from the transition, such as the coal and palm oil industry, have been able to influence the regulatory framework in their favour and block ambitious climate policies. Only recently, stakeholders benefitting from the transition have been able to marginally influence climate policies, reflected by the government's announcement to stop building new coal power plants as of 2023 and PLN's announcement it would gradually phase out coal power towards net zero emissions by 2060.

In the last CAT Climate Governance assessment in 2019, we **rated Indonesia's governance structure** slightly higher. One reason for the change is that in the 2021 round of governance assessments we rate the ability of governance structures to implement a full transition towards net zero emissions in line with the temperature goal of the Paris Agreement.

This said, we see positive developments on policy processes. The Indonesian government and in particular the national planning agency, Bappenas, have taken first steps by developing country-specific and science-based technical analysis to guide the transition towards net zero emissions. The rolling back of environmental policies, close ties to the palm oil and coal sectors and the inconsistencies within the government with regards to decarbonising the economy, however, show that Indonesia's governance structure is not well-prepared to transition the country towards net zero emissions.

Category	Criteria	Recommendations
Political commitment	High level government leadership	<ul style="list-style-type: none"> Commit to net zero emissions by 2045 since the government's own Bappenas 'Low Carbon Development' publication shows that low emissions pathways bear the highest socio-economic benefits and are aligned to the temperature goal of the Paris Agreement. Anchor statements against deforestation in legislation and revise recent measures such as fossil fuel bailouts, the mining law and the omnibus law on job creation to ensure they do not undermine the transition to net zero emissions. Raise the priority of climate considerations especially those that favour sustainable development, most notably in COVID-19 recovery measures.
	Quality of government decision making	
Institutional framework	Effective coordination	<ul style="list-style-type: none"> Increase coordination and policy alignment between ministries and focal points. Ensure mainstreaming of climate change into sectoral planning, e.g. by establishing climate change units within the Ministries of Agriculture, Industry and Transport with a clear mandate and shared objectives to implement sectoral transitions to net zero emissions. Integrate findings from technical analyses into sectoral policy-making. Consider increasing and stabilising budgets for climate change focal points to allow for effective planning.
	Knowledge infrastructure	
	Adequate resources	
Policy processes	Paris-compatible emissions pathway	<ul style="list-style-type: none"> Endorse the emissions reduction pathway by 2045 put forward in Bappenas' 'Low Carbon Development' publication and anchor it in climate change legislation. Enhance the policy review mechanism to review progress towards net zero emissions on the AKSARA platform. Increase the ambition of near-term climate mitigation targets and operationalise the ratcheting up mechanism by feeding long-term emission pathways in short-term climate targets.
	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 formal strategy or body, or increase the authority of the National Energy Council (DEN), to ensure an economy-wide just transition, for example to plan a shift away from fossil fuel production and towards a zero emissions society. Develop a standardised framework to transparently and consistently address the influence and leverage of interest groups aligned with fossil fuel industries and the palm oil industry in climate policy and legislative processes.
	Just transition	
	Management of non-state actor interests	

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1 Introduction

1.1 Domestic context

Indonesia has a population of around 270 million inhabitants, or 3.5% of the global population (World Bank, 2020). By 2050, the population is expected to reach over 330 million inhabitants (Knoema, 2021). It is the largest economy in Southeast Asia and the 16th largest worldwide with a GDP of more than USD 1.1 trillion in 2019 (World Bank, 2021). Indonesia will hold the Presidency of the G20 in 2022.

Indonesia is an archipelago that consists of over 17,000 islands and large forest cover, rendering it particularly vulnerable to the impacts of climate change. Indonesia is ranked in the top-third of countries in terms of climate risk, with high exposure to flooding and extreme heat (World Bank Group and ADB, 2021). Indonesia's large forest cover, the largest area of primary forest after the Amazon Rainforest, is vital to the planet's climate system, but also very vulnerable to extreme heat (World Bank Group and ADB, 2021).

Indonesia is particularly vulnerable to sea-level rise, with the country ranked fifth highest in the world terms of the size of the population inhabiting lower elevation coastal zones (World Bank Group and ADB, 2021). The country's capital city, Jakarta, is referred to as the sinking city. Due to sea level rise and the draining of groundwater for potable water, it sinks by up to 25 centimetres each year in some parts of the city (BBC News, 2018), prompting President Widodo to initiate plans to relocate the city in the long-term (Kompas, 2021).

Indonesia's reliance on coal is a significant driver of the country's emissions. Indonesia relies on its vast coal reserves for domestic energy demand and remains the world's largest coal exporter, mainly exporting to China and India (IEA, 2020a). Indonesia's electricity mainly comes from coal, which constituted a share of close to 60% of its electricity mix in 2019 (IEA, 2020b). Based on current plans it is projected that coal will remain the major source of electricity until at least 2030, with coal shares of 55% in 2025 and 54% in 2028 (CAT, 2019; GlobalData, 2021). More recently the state-owned energy utility PLN has announced it would begin retiring coal-fired power plants from 2025.

Indonesia also relies on other fossil fuels for economic development and energy supply. The country is Southeast Asia's biggest supplier of natural gas and rapidly increases oil imports (IEA, 2021). As a result, Indonesia is one of the largest emitters of greenhouse gases worldwide, with close to 950 MtCO₂eq in 2018 excluding LULUCF (Gütschow, J.; Günther, A.; Jeffery, L.; Gieseke, 2021).

The country's other largest source of greenhouse gas emissions is the land use, land use change and forestry (LULUCF) sector. The palm oil industry has significantly transformed Indonesia's landscape – largely due to agricultural expansion on carbon-rich soils - and is in large part responsible for the deforestation of primary forests, and for peat land draining, leading to higher occurrence of peat fires (CarbonBrief, 2019; Climate Action Tracker, 2020; World Bank Group and ADB, 2021). Because of LULUCF activities Indonesia lost an average of close to 500,000 hectares of primary forest each year between 2000 to 2015 (CarbonBrief, 2019; World Bank Group and ADB, 2021). This scale of deforestation is only second to the deforestation in the Brazilian Amazon forest (CarbonBrief, 2019).

Greenhouse gas emission from Indonesia's LULUCF sector vary from year to year in the range of roughly 550 to 1,200 MtCO₂eq in the last decade (Republic of Indonesia, 2018; Climate Action Tracker, 2020; FAO, 2021). In years with an unusually high occurrence of peat fires, such as the 2.60 million hectares that burned in 2015, LULUCF emissions reach the higher end of the range. Ministry data shows that 1.65 million hectares of forest and land burned in 2019 and the Food and Agriculture Organization (FAO) estimates that Indonesia's LULUCF emissions reached close to 1,000 MtCO₂eq in the same year (The Jakarta Post, 2020; FAO, 2021).

To address these alarming deforestation rates and damaging peat fires, the government of Indonesia repeatedly extended a moratorium on deforestation which it made permanent in 2019 (World Economic Forum, 2021). In late 2018 it also released a three-year moratorium on new palm plantation permits. These policies, among others, have significantly reduced the country's deforestation rate since 2016 (World Economic Forum, 2021). However, during the COVID-19 pandemic, the government enacted the omnibus law on job creation, amending over 70 laws to boost economic growth at the

expense of environmental regulations, essentially re-opening the door to deforestation and posing a risk of increasing deforestation rates in the future (UNCTAD, 2020).

Indonesia's coal and palm oil sectors are not only its main sources of greenhouse gas emissions but also the country's main sources of revenue. Without the export of coal and palm oil, the country would have a significant trade deficit, close to USD 40bn in 2018, compared to a surplus of more than USD 30bn with these two commodities (Growth Lab, 2019). Agriculture and mining represent the two largest economic sectors in Indonesia, followed by textiles and services (largely tourism) (Growth Lab, 2019; Ministry of Trade, 2019).

The year 2045 will mark 100 years since Indonesia's declaration of independence from the Netherlands. By the number of voters, Indonesia is the third largest democracy, after India and the USA. Joko Widodo is Indonesia's seventh President and has been in office since 2014. He is serving his second term after his re-election in 2019. President Widodo aims to transition Indonesia towards an "advanced, just and prosperous" developed country and one of the five "world economic powers" by 2045. He has emphasised the need for sustainable economic development and the strengthening of governance structures to reach that vision. These long-term goals are anchored in the country's long-term plan 'Indonesia 2045 Vision', laying the foundation for its development goals (Kementerian PPN / Bappenas, 2019a).

In Indonesia governance structures are strong at the sub-national level with regards to policy development and implementation to perform certain functions. The country is divided into seven regions and further into 34 provinces, all of which bear considerable democratic and political responsibilities. The provinces autonomously develop policies, development programmes (such as infrastructure projects) and independently manage public budgets. In the scope of this assessment, we only assess policymaking at the national level, but acknowledge that sub-national action is important in Indonesia.

1.2 Climate Governance Snapshot

The two main institutions relevant in the context of this assessment related to the transition towards a net zero emissions society and economy are the Ministry of Environment and Forestry, more particularly the Directorate General of Climate Change (Direktorat Jenderal Pengendalian Perubahan Iklim, DJPPI), and the Ministry of National Development Planning / National Development Planning Agency (Kementerian Perencanaan Pembangunan Nasional/ Badan Perencanaan Pembangunan Nasional), hereafter referred to as Bappenas. The Directorate General of Climate Change has the mandate to coordinate climate change relevant issues amongst ministries, and Bappenas, the national planning agency, plays a centre role in the development and coordination of (sectoral) plans and strategies.

The National Medium-Term Development Plan for 2020-2024 outlines the government's development priorities and strategies until 2024 for all sectors. Of nine "missions", the government aims to reach "environmental sustainability" and puts forward targets and measures to reach that goal. The Plan includes a priority programme dedicated to 'Low Carbon Development'. Indonesia also released a National Long-Term Development Plan (RPJPN) for the period 2005-2025 and the strategy 'Indonesia Vision 2045: Sovereign, Progressive, Just and Prosperous' (Indonesia 2045 Berdaulat, Maju, Adil, dan Makmur). The entails several references to the environment but does not mention climate change but one of the four strategic pillars of the strategy 'Indonesia Vision 2045' is 'Sustainable economic development'.

In line with the National Medium-Term Development Plan, Bappenas developed four emission reduction pathways with four targets to reach net zero emissions between 2045 and 2070. The socio-economic assessment of each pathway shows that an earlier decarbonisation target results in higher benefits for the nation. This is particularly highlighted in the separate Bappenas publication of a long-term plan to transition towards net zero emissions by 2045 (Low Carbon Development: A Paradigm Shift Towards a Green Economy in Indonesia) (Kementerian PPN/Bappenas, 2019b). In a parallel effort, the Directorate General Of Climate Change has prepared a Long-term Strategy on Low Carbon and Climate Resilience (LTS-LCCR) 2050, with the aim of reaching net zero emissions by '2060 or sooner' (Directorate General Of Change Change, 2021).

Indonesia submitted a 2030 climate pledge (NDC) within the framework of the Paris Agreement in 2016 and updated its NDC in July 2021. The updated NDC does not raise the country's previous climate pledges that aim for a 29% emissions reduction below a business-as-usual scenario by 2030 and a 41% emissions reduction (including LULUCF emissions) on the condition of receiving international support. Despite the fact that Indonesia has taken action both on climate change adaptation and mitigation, current pledges and policies are 'Highly insufficient' according to the Climate Action Tracker: if all countries followed Indonesia's ambition level it would result in global warming of more than 3°C (Climate Transparency, 2020; Climate Action Tracker, 2021c).

Indonesia established a climate action coordinating agency, the National Council for Climate Change, as early as 2008. After taking office in 2014, President Widodo merged the Ministry of Environment and the Ministry of Forestry and created the Directorate General of Climate Change, which replaced the National Council for Climate Change but has lower authority. Indonesia passed a law in 2011 that anchors its current and future climate commitments to the UNFCCC into law. In 2017, the government also put in place several pieces of legislation to operationalise the monitoring and reporting of greenhouse gas emissions, international funds the country receives, as well as climate action towards its NDC.



Key Institutions

We list the two lead agencies with regards to climate-related planning and policy development. The transition to a net zero economy requires action by all ministries:

Ministry of Environment and Forestry (Kementerian Lingkungan Hidup dan Kehutanan: Directorate General of Climate Change (Direktorat Jenderal Pengendalian Perubahan Iklim) (DJPP)

The Directorate General of Climate Change is the lead agency for the development and implementation of climate policy in Indonesia as well as the focal point for the UNFCCC. It is housed within the Ministry of Environment and Forestry (Kementerian Lingkungan Hidup dan Kehutanan). Its tasks include the development of implementing mitigation measures, mobilising resources, the preparation of greenhouse gas inventories, the monitoring, reporting and leveraging of climate action, including the management of forests and land fires.

The Ministry of National Development Planning / National Development Planning Agency (Kementerian Perencanaan Pembangunan Nasional/ Badan Perencanaan Pembangunan Nasional) (Bappenas)

Bappenas is the national development agency. It prepares medium-term (RPJMN) and long-term (RPJPN) development plans and is in charge of budgeting processes. It plays a coordinating role amongst ministries and its plans provide a reference/guidance for sectoral plans that Bappenas also approves.



Key Plans & Strategies

National Action Plan to Reduce GHG emissions Rencana Aksi Nasional Penurunan Emisi Gas Rumah Kaca (RAN-GRK) [outdated]

The Plan sets out the emissions reduction strategy to achieve Indonesia's 2020 target and was regulated by Presidential Regulation no 61/2011

The National Medium-Term Development Plan for 2020-2024

The Plan is regulated by *Presidential Regulation No 18/2020*. It outlines the government's development priorities and strategies until 2024 for all sectors. Of nine "missions", the government aims to reach "environmental sustainability" and proposed targets and measures to reach that goal. One of the Priority Programmes (PP3) specifically aims for a Low Carbon Development and lays the foundation for Indonesia's emissions pathways.

Indonesia Vision 2045: Sovereign, Progressive, Just and Prosperous (Indonesia 2045: Berdaulat, Maju, Adil, dan Makmur)

The strategy sets a long-term development vision for the country. It is built around four pillars: human development and mastery of science and technology, sustainable economic development, equitable development, strengthening of national resilience, and governance.

Long-term Strategy on Low Carbon and Climate Resilience (LTS-LCCR) 2050

The Directorate General of Climate Change, under the Ministry of Environment and Forestry, submitted Indonesia's long-term low greenhouse gas emissions development strategy (LTS) in July 2021. It puts forward a Paris Agreement compatible scenario that peaks emissions by 2030 and reaches net zero emissions by '2060 or sooner'.

Low Carbon Development: A Paradigm Shift Towards a Green Economy in Indonesia

The report is the result of Indonesia's Low Carbon Development Initiative (LCDI) in which several long-term emissions pathways were developed based on an inter-sectoral effort. Bappenas released the report based on the scenario aiming for carbon neutrality by 2045, which informed the Medium-Term National Development Plan (RPJMN) 2020-2024.

NDC Implementation Strategy

The Ministry of Environment and Forestry published the NDC Implementation Strategy in 2017. It serves as a guideline for relevant stakeholders to reach national commitment on GHG emissions reduction and low carbon development and climate resilience in line with Indonesia's NDC.



Targets

Medium-term target

Unconditional target: 29% below a business-as-usual scenario by 2030 including LULUCF emissions

Conditional target: 41% below a business-as-usual scenario by 2030 including LULUCF emissions

Long-term target

No net zero emissions target endorsed yet



Key Laws & Regulations

National Council for Climate Change (NCCC or DNPI)

Presidential Regulation No. 46/2008

The regulation established the National Council of Climate Change to coordinate climate action directly under the authority of the Presidency. It was later replaced by the Directorate General of Climate Change that is placed within the Ministry of Forestry and Environment.

National Action Plan to reduce GHG emissions (RAN-GRK)

Presidential Decree No. 61/2011

The Decree put forward emissions reduction targets of 26% by 2020 on an unconditional basis and 41% on a conditional basis, compared to a business-as-usual scenario and with mitigation measures in five key sectors, i.e., forestry and peat-land, waste, energy and transport, agriculture, and industry.

Directorate General of Climate Change (Sekilas Tentang Direktorat Jenderal Pengendalian Perubahan Iklim)

Presidential Regulation No. 16/2015, and No. 18/2015

The regulation merged the Ministry of Environment, the Ministry of Forestry, the National Council on Climate Change and the BPREDD+ into the Ministry of Environment and created the Directorate General of Climate Change to deal with climate change and forest and land fires in Indonesia.

Ratification of Paris Agreement

Indonesian Law (Undang-Undang) No 16/2016

The key law related to Indonesia's NDC. Indonesian Law (Undang-Undang) has higher authority than Presidential Regulation or Ministerial Regulation.

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 Perubaham 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.

2 National assessment

2.1 Political commitment

Political commitment

High level government leadership

Quality of government decision making

President Joko Widodo shows a certain level of commitment to act upon climate change but the government's policies do not support his ambitious claims. Indonesia's national planning agency, Bappenas, released an emissions pathway towards 2045 with higher socio-economic benefits than a later target but the Directorate of Climate Change submitted a less ambitious Long-term Strategy to the UNFCCC.

The President has not yet officially endorsed a net zero target. Climate action is not a core priority in Indonesian politics and political support for the transition to zero emissions is lacking. High levels of corruption and the rolling back of existing climate policies, notably through the enactment of the omnibus law on job creation or the revision of the law on Mineral and Coal Mining (Minerba), highlight a lack of political commitment, accountability and trustworthiness for transition-related policies towards net zero emissions.

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.

President Joko Widodo has repeatedly affirmed his commitment to climate action that he has made dependent on climate action by developed countries., most recently at the Leaders' Summit on Climate in 2021 (Government of Indonesia, 2015, 2021d, 2021c; ABC News, 2020). However, many see his commitment to addressing climate change as 'hollow' and 'unclear' (IESR, 2021a; Mongabay, 2021). The President has not committed the country to transition towards a net zero economy and Indonesia's current climate pledges are 'Highly insufficient' according to the Climate Action Tracker: if all countries followed Indonesia's ambition level it would result in global warming of more than 3°C (Climate Transparency, 2020; Climate Action Tracker, 2021c). Furthermore, the government's climate policy implementation has been inconsistent over the years (The Jakarta Post, 2018).

The Indonesian government cabinet does not consider the transition towards a net zero emissions society as a core priority and therefore there is no particularly strong support by the cabinet (Government of Indonesia, 2021a). However, there is also no evidence supporting the fact that the government is hostile to such a transition. The President established the Directorate General of Climate Change in 2015 under the Ministry of Environment and Forestry (Directorate General of Climate Change, no date). Despite its mandate to develop and implement climate change related policies, it seems to have an informative rather than an executive role.

Indonesia's National Development Planning Ministry and the National Development Planning Agency (PPN/Bappenas) lead planning processes, including those related to the transition towards net zero emissions. They have supported the transition towards a net zero emissions society at the Indonesia Net Zero Summit 2021 and have released plans accordingly (FPCI, 2021). There is inconsistency within the government, however, as to which path the country should follow, as the LTS prepared by the Directorate General states that Indonesia could reach net zero emissions by '2060 or sooner' compared to an earlier target proposed by Bappenas in a separate document (Kementerian PPN / Bappenas, 2019a; Government of Indonesia, 2021b). Policies are viewed as insufficient by the public, including energy sector stakeholders (IESR, 2019; WRI, 2020).

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 and Töpfer, 2015).

In Indonesia "low carbon development is still seen as an obstacle and a challenge" and political support is lacking (IESR, 2021a). At the same time, there is no evidence of political actors taking a clear stance against the transition. In fact, in the 2014 and 2019 presidential elections, the two largest political parties included climate change relevant aspects in their manifestos, but did not make them a priority, nor was climate change a part of the political debate (The Jakarta Post, 2014; Jong, 2019).

President Widodo has recently rolled back existing climate policies, has close ties with the palm oil and coal industry and the country still ranks quite low on the Corruption Perceptions Index (102nd worldwide with a score of 37¹), reflecting a lack of accountability and trustworthiness with regards to climate policies. Notably, in 2020, the government enforced the Job Creation Law, also referred to as the 'Omnibus Law' (UNCTAD, 2020). The Job Creation Law promulgates extensive changes to 79 national laws with several relating to the country's natural resources. In pursuit of job creation, the law opens loopholes for an increase in deforestation, 'similar to deforestation seen on the Java island' (Heinrich Böll Stiftung, 2020). In 2020, the parliament passed the revision of the 2009 law on Mineral and Coal Mining (Minerba) that allows further environmental degradation and loosens social standards (Mongabay, 2020). The Indonesian government also has links to the palm oil and coal industry that have influenced policymaking at the cost of the transition towards net zero emissions (Jatam, 2019)

2.2 Institutional Framework



The Ministry of Environment hosts the Directorate General of Climate Change, the official focal point for climate planning, but it has limited influence on climate action and sectoral plans as line ministries oftentimes act independently.

The national planning agency, Bappenas, coordinates planning and policy development including those related to climate change amongst ministries as well as amongst provinces. Notably, Bappenas has translated national climate mitigation targets into sector-level mid-term targets and policies, and pursues the development of Regional Low-Carbon Development Plans (RPRKD).

Despite coordination efforts, the transition to net zero emissions is not sufficiently considered in line ministries and current policies more prominently encourage deforestation, most notably through the palm oil industry, as well as the significant expansion of coal both for export and domestic consumption. Despite the existing knowledge infrastructure, the government lags on the consideration of the outcomes of technical analyses, suggesting that decisions are politically-driven rather than informed by country-specific technical evidence.

Budgets for the Ministry of Environment and Forestry and Bappenas are generally sufficient although fluctuating. Bappenas is able to develop scientific and technical analysis to support the transition to net zero emissions. Indonesia is also generally well-prepared to catalyse climate finance, but current efforts are insufficient for the scale and speed required to finance sectoral transitions.

¹ See Transparency International's Corruption Perceptions Index 2020 for more information: <https://www.transparency.org/en/cpi/2020/index/idn>.

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.

Horizontal coordination of transition-related actions between line ministries is important to address the society-wide task of reaching net zero emissions. The Directorate General of Climate Change has a mandate to coordinate inter-ministerial climate action, for example it drafted the NDC and LTS submitted to the UNFCCC in July 2021. However, the Ministry of Environment, that hosts the Directorate, has limited influence on climate action and sectoral plans in line ministries, as line ministries often act independently (Abdul Manan, 2021).

The national planning agency, Bappenas, coordinates inter-ministerial policies and plans, including those related to climate change, but has no executive power. For example, Bappenas has translated national climate mitigation targets into sector-level mid-term targets and policies (National Medium-Term Development Plan for 2020-2024) (Republic of Indonesia, 2020b).

The Mid-term Strategic Plan 2020-2024 of the Ministry of Energy and Mineral Resources and the Ministry of Agriculture include actionable measures in line with national targets. The Mid-term Strategic Plan 2020-2024 of the Ministry of Finance refers to the national mid-term plan target of financially supporting climate change mitigation and adaptation measures (Ministry of Finance, 2020b; Republic of Indonesia, 2020a). Equivalent sectoral plans from other ministries generally acknowledge the threat of climate change and the need to act upon it but do not include actionable measures. Bappenas also cooperated with line ministries such as the Ministry of Agriculture or Transport, to develop long term emissions scenarios and related measures. Results have been published in the "Low Carbon Development: A Paradigm Shift Towards a Green Economy in Indonesia" report in 2019 (Kementerian PPN/Bappenas, 2019b).

Inconsistencies and misalignment in the coordination of climate plans and policies between the two lead agencies and amongst ministries require considerable improvements to enable the transition of Indonesia's economy to net zero emissions. More recently, the Coordinating Ministry for Maritime Affairs and Investment (Kemenko Marves) has begun coordinating climate action between ministries, further blurring responsibilities within the government (Coordinating Ministry for Maritime Affairs and Investment, 2021).

The transition to net zero emissions and the scale of change required for the transition is largely not - or at least not sufficiently - considered in line ministries. Only the Ministry of Energy and Mineral Resources has a directorate dedicated to climate change: the Directorate General of New Renewable Energy and Energy Conservation (Direktorat Jenderal Energi Baru, Terbarukan, dan Konservasi Energi) (Ministry of Energy and Mineral Resources, no date).

With this lack of climate change consideration amongst line ministries, sectoral policies do not align with government high-level mitigation strategies. Government policies do support some climate relevant measures, notably through a biodiesel or electric vehicle (EV) regulation, but current policies more prominently encourage deforestation, most notably through the palm oil industry, as well as the significant expansion of coal both for export and domestic consumption (Climate Action Tracker, 2020; Eco-business, 2021).

There is some level of vertical coordination of transition-related actions and policies between the national and local governments, but there is limited evidence that the coordination is comprehensive and effective (Sulistiawati and Prof, 2020). The Directorate General of Climate Change has several initiatives to engage with local communities, but they are small-scale and based on individual cases rather than reflecting a comprehensive approach required for the transition to net zero. Indonesia's National Medium-Term Development Plan for 2020-2024 explicitly addresses this gap and has developed the Regional Low-Carbon Development Plans (RPRKD) (Republic of Indonesia, 2020b). As a first step in implementing these plans, the Minister of National Development Planning/Head of Bappenas signed a memorandum of understanding (MoU) with provincial governments on low-carbon development planning (Directorate General of Climate Change, 2021). The Ministry of Energy and Mineral Resources coordinates the development of 34 provincial energy plans, in line with the National General Energy Plan (RUEN) (Verda Nano Setiawan, 2021).

The existence and utilisation of a **knowledge infrastructure capable of supporting strategic planning and policy development** is important for successful climate governance, as this aids in the elaboration and application of decarbonisation analyses in climate policy development.

The Institute for Essential Services Reform (IESR), an Indonesian think tank in the field of energy and environment, launched the Indonesia Clean Energy Forum (ICEF) in 2018. It includes various high-level stakeholders in the energy-related sectors. It is supported by the Ministry of Energy and Mineral Resources and joined by the Ministry of Finance, a representative of the President's Staff, and the Ministry for Economic Affairs (IESR, 2018). The aim is to actively support policymaking in the energy sector to transition towards renewable energy sources. Such mechanisms are absent in other sectors. Indonesia's national planning agency, Bappenas, released the "Low Carbon Development" report based on scenario modelling between 2018 and 2045. The report is based on a participatory process and in cooperation with international technical assistance, such as cooperation with the International Institute for Applied Systems Analysis (IIASA) or the New Climate Economy (Kementerian PPN/Bappenas, 2019b). Bappenas also developed three additional scenarios reaching net zero emissions in 2050, 2060 and 2070 – these scenarios are not publicly available as of September 2021 (JakartaGlobe, 2021a).

Despite the existing knowledge infrastructure, the government lags on its consideration of such analyses. This is demonstrated by the fact that the Directorate General of Climate Change from the Ministry of Environment and Forestry submitted a Long Term Strategy Low Carbon and Climate Resilience 2050 (LTS-LCCR 2050) to the UNFCCC with a net zero emissions goal by 2060 or sooner, despite the evidence from Bappenas that the 2045 and 2050 scenarios are economically more advantageous (Dunia Energi, 2021a).

This decision reflects inconsistencies within the government, as Bappenas presented an earlier decarbonisation target. This decision has also been criticised by experts and civil society (Dunia Energi, 2021b; JakartaGlobe, 2021b). The Ministry of Environment and Forestry originally considered a net zero target by 2070 but changed the goal to 2060 soon before submitting the documents – the quantified emissions pathways are projected to 2050 only (Government of Indonesia, 2021b). Inconsistencies within the government suggests that the setting of climate targets may be politically motivated rather than based on the scientific evidence available at the national level.

Capital and resource constraints are significant barriers to effective climate governance and have been an impediment for developing countries in the past (Bhave *et al.*, 2016). **Adequate resources and capacity** need to be made available to implementers, and be efficiently used by them in climate policy processes.

The Ministry of Environment and Forestry, that hosts the Directorate General of Climate Change, received just over USD 640 million for 2021 (Ministry of Environment and Forestry, 2021a). The budget for the national planning agency, Bappenas, has fluctuated every year between 2016 to 2020 and slightly decreased in 2021 (IDNFinancials, 2020; Republic of Indonesia, 2021). Overall, both agencies seem to be able to implement their respective tasks.

Indonesia reports continuous institutional learning both at the national level and in local governments in its Biennial Update Report (Republic of Indonesia, 2018). Changes in staffing may have impacted institutional learning but high-level staff at the Ministry of Environment and Forestry and in the Directorate for the Environment at Bappenas is stable and can be an indication for continuous institutional learning. Dr. Siti Nurbaya has been the Minister of Environment and Forestry since 2014, despite a government reshuffle in 2019 (Ministry of Finance, 2020a), Dr. Medrilzam, a lead author of the national "Low Carbon Development" report, has been at Bappenas for over two decades and the Director for the Environment at the agency for close to five years (Kementerian PPN/Bappenas, 2021).

In the last decade Indonesia has stepped up efforts to better catalyse climate finance from domestic and international sources, including by establishing governance structures. It is generally well prepared to catalyse climate finance. In 2014, Indonesia set up the Low Emission Budget Tagging and Scoring System (LESS) for Climate Change Mitigation Expenditures, monitored by the Centre for Climate Change Financing and Multilateral Policy (Ministry of Finance, 2014). In its updated NDC, Indonesia reports key figures from domestic and international climate funds in the order of USD billions and trillions since 2014. Indonesia also estimated finance needs for the implementation of its NDC Roadmap (for the first NDC) in the order of USD 320bn (Ministry of Environment and Forestry, 2021b). However, climate finance flows have not reached the scale required to finance sectoral transitions - at least covering the required investments identified in the NDC Roadmap (CPI, 2020).

To trigger domestic climate finance flows, the government further mandates financial institutions, listed companies, and public companies to report on the sustainable aspects of their portfolios by 2021 (POJK 51/2017 regulation issued by the Financial Services Authority, OJK) (Government of Indonesia, 2017). The government established the Environmental Funds Management Agency (Badan Pengelola Dana Lingkungan Hidup, BPLDH) in 2019, working under the umbrella of the Ministry of Finance. It will oversee the USD 7.5bn dedicated to the reduction of greenhouse gas emissions in the country's national budget (Ministry of Finance, 2019). BPLDH will play a coordinating role between relevant ministries, international funders and the finance sector to catalyse climate finance (Government of Indonesia, 2020).

Despite these developments, current efforts have not yet catalysed finance at the scale and speed required to finance sectoral transitions. It is also important to note that finance flows to emissions-intensive activities exceed climate finance flows, as the government continues to support the expansion of its coal industry. Indonesia committed USD 12bn to fossil fuel subsidies in the context of its COVID-19 recovery measures (OECD/IEA, 2021).

2.3 Process for policy development, implementation and review



Indonesia has put in place key climate legislation as early as 2007. It released an updated NDC but did not increase the ambition of its climate target, thus disregarding the ratchet-up mechanism of the Paris Agreement. Indonesia submitted a long-term strategy in parallel to the updated NDC.

The strategy includes an emissions reduction pathway 'compatible with the Paris Agreement target' with an emissions peak in 2030 and a significant decrease of emissions to reach net zero emission in '2060 or sooner'. However, the government has not officially endorsed a net zero target and the proposed pathway does not consider the evidence put forward by Bappenas that an emissions reduction pathway leading to net zero emissions by 2045 would be economically and socially more beneficial to the country.

The platform AKSARA monitors emission reductions, and policies are partly tracked under the National Registry System, but information feeding to the system is voluntary and not reviewed by a third party.

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

Indonesia introduced the National Action Plan Addressing Climate Change, with a strong focus on Forestry, as early as 2007 (Government of Indonesia, 2007). In 2011, it released the Presidential Decree on National Action Plan to reduce GHG emissions (RAN-GRK), with a quantified emissions reduction target of 26% in 2020, allocated to five different sectors, such as forestry and peatland, waste, energy and transport, agriculture, and industry (Government of Indonesia, 2011).

Since the CAT Climate Governance assessment in 2019, the Directorate General of Climate Change, hosted by the Ministry of Environment and Forestry, released an updated NDC as well as a 'Long-term Strategy on Low Carbon and Climate Resilience (LTS-LCCR) 2050' in the frame of the Paris Agreement.

The LTS includes a national emissions pathway called the 'low carbon scenario compatible with the Paris Agreement target (LCCP)'. The scenario entails an emissions peak in 2030 and significantly reduced emissions thereafter. The prolongation of that steep reduction curve would result in net zero emissions by '2060 or sooner', although the modelling only goes to 2050 (Government of Indonesia, 2021b). The government of Indonesia has not officially endorsed the pathway nor a net zero target. Furthermore, the LTS prepared by the Ministry does not take into account the larger socio-economic

benefits of an earlier net zero emissions target by 2045 - from the analysis by Bappenas (Kementerian PPN/Bappenas, 2019b).

The updated NDC submitted in 2021 does not raise the ambition level of the climate target and does not take into account the emissions pathways put forward in the LTS (Climate Action Tracker, 2021a). Therefore, long-term planning has not (yet) influenced near-term policy development (Government of Indonesia, 2021b; Ministry of Environment and Forestry, 2021b). Nevertheless, it is noteworthy that current mid-term sectoral plans, most prominently the National General Energy Plan (RUEN), lead to the achievement of Indonesia's NDC climate targets (Climate Action Tracker, 2020).

It is uncertain whether the LTS and proposed long-term emission pathways have been fed back into medium-term plans such as the updated sectoral plans, the LTS is at least not mentioned. However, the LTS and updated NDC are more closely aligned to national policy plans such as Indonesia's National Medium-Term Development Plan for 2020-2024 as well as the country's long term development plan, Indonesia Vision 2045, than previously. For example, in Indonesia Vision 2045 the government dedicates a full chapter (VII) to environmental and climate change-related action (Republic of Indonesia, 2020b). While the proposed climate mitigation measures are insufficient to decarbonise Indonesia's economy, the measures show some level of integration and alignment of a long-term vision in near-term plans.

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

Since 2012, Bappenas has actively monitored the implementation of the National/Regional Action Plan for Reducing Greenhouse Gas Emissions (RAN/RAD-GRK) through the Monitoring, Evaluation, and Reporting (PEP) mechanism. In 2017, this mechanism was enhanced to an online portal known as PEP Online and further developed to AKSARA ('Indonesian Low Carbon Development Planning and Monitoring Application') (Kementerian PPN/Bappenas, 2019a; Partnership on Transparency, 2020).

The Directorate General of Climate Change, hosted by the Ministry of Environment and Forestry, runs the National Registry System to monitor climate action on a bottom-up basis. The Registry also includes projects related to the 'means of implementation' such as climate finance, technology development or capacity building (Directorate General of Climate Change, 2020). There is also some evidence of climate finance tracking in the country's updated NDC (Ministry of Environment and Forestry, 2021b).

Neither the AKSARA nor the National Registry System platforms transparently report on policies to achieve the transition (Kementerian PPN/Bappenas, 2019a). The updated NDC refers to an 'inter-ministerial team' to monitor the NDC implementations, but there is no evidence that these monitoring activities have started (Ministry of Environment and Forestry, 2021b). While there is room for improvement, Indonesia has a comprehensive and operational transparency framework in place.

The Paris Agreement (Art. 2.3) puts forward a '**ratchet-up mechanism**' in which Parties shall submit successive NDCs that represent a progression beyond the current NDC, reflecting highest possible ambition, common but differentiated responsibilities and in line with national circumstances (UNFCCC, 2015).

The government released an updated NDC in July 2021, but the climate targets are not more ambitious than in the previous NDC submitted in 2016 (Climate Action Tracker, 2021a; Ministry of Environment and Forestry, 2021b). The updated NDC proposes measures and policies to implement the climate targets along nine pillars, one of which is the monitoring and reviewing of the NDC. The fact that Indonesia submitted an updated NDC and official processes are at least planned reflects a certain level of a ratchet up mechanism but fails to raise the ambition of climate targets (Climate Action Tracker, 2020). Relevant stakeholders and the Ministry of Energy and Mineral Resources had advised the government to increase the ambition level of the new NDC compared to the NDC submitted in 2016 (Aqil, 2020).

2.4 Stakeholder engagement

Stakeholder engagement		
Level and scope	Just transition	Management of non-state actor interests

There are mixed signals on the level and scope of engagement with stakeholders, as a fifth of the population does not believe in climate change but experts and civil society advocate for more ambitious climate action. In recent plans the government has identified 'lack of awareness' as a barrier to the transition and aims to more actively disseminate climate change related content. The government has engaged with non-state actors to develop climate plans, but the extent to which stakeholders are represented in these processes and influence policy-making is unclear.

Indonesia has no formal strategy or body to ensure an economy-wide just transition. For example, Indonesia fails to consider a shift away from fossil fuel production. Stakeholders at risk from the transition, such as the coal and palm oil industry, have been able to influence the regulatory framework in their favour and block ambitious climate policies. Only recently, stakeholders benefitting from the transition have been able to marginally influence climate policies, reflected by the government's announcement to stop building new coal power plants as of 2023.

The government's **level and scope of engagement** with stakeholders reflects how well it is aware of external knowledge and the expectations of its constituents, which, in turn, affects the ability for sound government decision making.

The Directorate General on Climate Change does not have a workstream dedicated to climate change education (DJPPPI, no date). The AKSARA platform provides e-learning material related to the transition to a low carbon society for local governments, but not for civil society actors (Kementerian PPN/Bappenas, 2019a). Climate change is often not covered in education syllabuses (Sofiyani, Aksa and Saiman, 2019). Most students and teachers are informed about climate change from mass media rather than the education system (Wahyuni, 2017). The national mid-term plan 2020-2024 identifies 'lack of awareness' as a barrier to the transition and aims to more actively disseminate climate change related content (Republic of Indonesia, 2020b).

The recently-submitted updated NDC and long-term strategy (LTS-LCCR 2050) included a consultation process (Directorate General Of Change Change, 2021; Ministry of Environment and Forestry, 2021b). However, no information is available on the non-state actors that partook in the process nor how the government integrated their perspectives. The updated NDC specifically aims to enhance the engagement of non-party stakeholders, such as local government, private sectors, and civil societies (Ministry of Environment and Forestry, 2021b).

The Indonesia Clean Energy Forum (ICEF) gathers high-level stakeholder representatives at least once a year to discuss policymaking in favour of the transition towards net zero emissions in the energy sector. Several government representatives take part in the forum, reflecting some level of buy-in (IESR, 2018). It is noteworthy that although the government supports the initiative, the forum was initiated by a non-state actor, namely IESR. Nevertheless, the updated NDC aims to enhance the engagement of non-party stakeholders, such as local governments, private sectors, and civil societies (Ministry of Environment and Forestry, 2021b).

It is important that the transition towards net zero emissions is planned and implemented as a **just transition**, triggering wider benefits for the whole population and ensuring that nobody is left behind. Indonesia has no formal strategy or body to ensure an economy-wide just transition, and policy documents do not mention the need for it (IESR, 2020). Current low carbon transitions initiatives in the energy sector have been unable to overcome various forms of injustice and have, in some cases, reinforced existing ones as policies favouring the expansion of large-scale renewables "disproportionally affect[...] indigenous people and minority groups, many of whom live in [...] remote areas and outlying islands" (Elliott and Setyowati, 2020).

The Indonesian energy sector fails to consider a shift away from fossil fuel production. However, with its high reliance on coal power, Indonesia is particularly exposed to transition-related risks, such as stranded assets with around a million jobs at risk (IESR, 2020). A shift away from coal would have a net positive effect on job creation and significantly reduce premature deaths resulting from air pollution (CAT, 2019; Climate Action Tracker, 2021b). Further, the government actively supports a shift to sustainable palm oil production, while it does not plan for transition away from the palm oil industry (The Jakarta Post, 2021).

The **management of non-state actor interests** is another important consideration, as it shows whether governments have succeeded in addressing resistance created by vested interests and communicating the fairness of their policies to the public. An assessment of the ability to manage non-state actor interests reveals how much public support or opposition policies receive.

Public support for the transition in Indonesia is split. Activists and experts actively pursue more ambitious climate action, most recently striking for an earlier net zero emissions target than 2070 (Mongabay, 2021). However, a part of the population is not well informed on the issue of climate change: close to a fifth of Indonesians do not believe in climate change (Milman and Harvey, 2019). It can be assumed that this share of the population does not actively support the transition. However, a survey amongst citizens of the Bitung city, located in eastern Indonesia, revealed a "quite strong" awareness of climate change, which suggests regional differences (Nggole, Tyas and Pradoto, 2019).

A wide set of literature providing advice and technical analysis around the possibility of Indonesia decarbonising its economy is available, mainly performed or supported by international organisations (International Renewable Energy Agency, 2017; APERC, 2019; Climate Action Tracker, 2019; Climate Analytics, 2019; Tacconi and Muttaqin, 2019). However, local organisations also provide advice on the transition to zero emissions (Auriga Nusantara, 2021; IESR, 2021b).

Notably, Bappenas published the "Low Carbon Development" report. The report is based on macro-economic modelling and takes account of scientific evidence related to climate change. It proposes a set of scenarios and, among other outcomes, quantifies related emissions reduction pathways. The report enables stakeholders to engage with the visions as analytical work and proposed measures are transparently reported (Kementerian PPN / Bappenas, 2019b).

There is evidence that the plan is used by non-state actors for advocacy and target-setting, such as at the Net Zero Summit in April 2021 (FPCIndonesia, 2021). This summit was organised by the Foreign Policy Community of Indonesia (FPCIndonesia), an independent policy organisation. Additional analysis and scenarios exist for the energy, transport and agriculture sectors, which can support the planning of sectoral transitions, advocacy strategies and the setting of climate targets (Aggarwal and Jain, 2016; Kusumadewi and Limmeechokchai, 2017; WRI, 2017; Malahayati and Masui, 2019).

Stakeholders at risk from the transition, such as the coal industry (the state-owned oil and natural gas corporation Pertamina or the state-owned electricity company PT Perusahaan Listrik Negara, PLN), have been able to influence the regulatory framework in their favour, for example by lobbying for government subsidies that enable coal-fired power plants to meet power purchase prices (Regulations 12/2017 and 50/2017) (Bridle *et al.*, 2018).

Stakeholders at risk from the transition are influential in energy policy, whereas stakeholders in favour of the transition see current energy policies as "road blockers" of the transition towards renewable energy (Bridle *et al.*, 2018). Palm oil stakeholders "exploit their connections with relevant government agencies such as the Ministry of Agriculture and the Ministry of Trade" to weaken sustainable palm oil regulations, including deforestation regulations (Choiruzzad, Tyson and Varkkey, 2021).

In comparison, stakeholders benefitting from the transition have not been able to influence policy making. Indonesia has been largely expanding coal-fired power plants despite continuous protests and lawsuits by civil society organisations, such as the People's Forum for the Environment (Formapel) or the Indonesian Forum for the Environment (Walhi).

Most recently, in the first half of 2021, Indonesia announced it would stop building new coal power plants as of 2023 (Adi Renaldi, 2021). The Minister of National Development Planning also publicly announced the need for an economic transformation towards a green, sustainable economy at the Net Zero Summit in April 2021 (Antara News, 2021). These recent developments show that pro-transition stakeholders may be able to indirectly influence policies.

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The Climate Action Tracker (CAT) is an independent scientific analysis produced by two 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.

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The 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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