



# Nationally Determined Contributions (NDCs)

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## Sustainability Report

The Abdullah Bin Hamad Al-Attiyah International Foundation for  
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# Al-Attiyah Foundation Monthly Sustainability Digest

Expert sustainability opinion and insight

## Nationally Determined Contributions (NDCs)

### The prognosis for the 'pledge-and-review' approach of the Paris Agreement

The end of 2018 marked two years since the ratification of the Paris Agreement, and two years from the first call for more ambitious pledges. The international community is cautiously observing collective efforts to reduce emissions. The Intergovernmental Panel on Climate Change (IPCC) Special Report on the impacts of global warming of 1.5°C above pre-industrial levels, concludes that staying well below two degrees is still within reach, but time is running out and deep emission reductions are a necessity in the coming decades. There are numerous positive initiatives in support of the Paris Agreement, but it has also become clear that the initial NDCs, often hastily compiled and hardly scrutinised, are insufficient to keep emissions in check. We depend on the ratcheting mechanism of the Paris Agreement to put us on track. In this month's digest we look ahead to explore whether governments are ready for the next round of pledges and where support and preparation could focus.

#### Executive Summary

- The adoption of the Paris Agreement in December 2015 by 196 countries that are Parties to the United Nations Framework Convention on Climate Change (UNFCCC), was hailed as a major breakthrough in global efforts to combat climate change.
- The Paris Agreement set a long-term goal of keeping global warming below 2°C and if possible, below 1.5°C. The agreement established a long-term signal for action based on an inclusive bottom-up approach that requires all countries to submit national targets to reduce emissions and adapt to climate change.
- The initial national pledges (NDCs) submitted to the UNFCCC are required to be updated every five years, beginning in 2020, to ensure that deeper emissions cuts can be achieved over time.
- This pledge-and-review approach, is considered a paradigm shift that allows countries to focus more on collaboration and cooperation, as they collectively step-up global efforts to combat climate change.
- A review of current pledges shows that global emissions will continue to rise and the global average temperature is projected to increase by about 3.2°C by the end of this century. To stay in line with the Paris targets, countries' efforts must triple to meet the 2°C goal and increase fivefold to meet 1.5°C.

The focus of the UNFCCC is currently guided by three questions from the submitted Nationally Determined Contributions (NDCs). Where are we now? Where do we want to go? And how do we get there?

In October 2018, the IPCC produced the Special Report on the impacts of global warming of 1.5°C above pre-industrial levels. Leading scientists tell us that reaching the 1.5°C target is extremely difficult, but not impossible. Time is running out, and CO<sub>2</sub> emissions need to be phased out completely by 2050 for the world to have a decent chance of staying within 1.5°C change. This is an overwhelming task not only in terms of technological and financial resources but reaching net-zero emissions also requires unprecedented cultural and social transformation across all sectors of the economy.

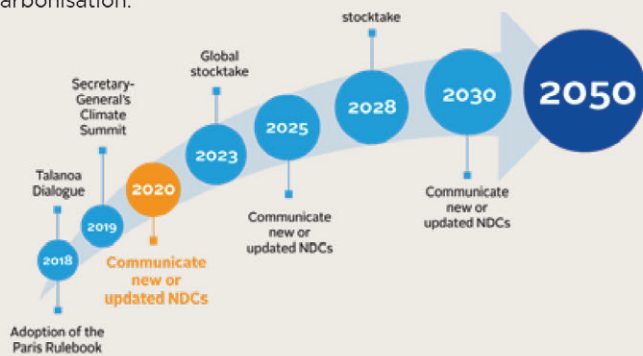
There are numerous positive initiatives in support of the Paris Agreement. UN Environment reports that "more than 7,000 cities from 133 countries and 245 regions from 42 countries, along with more than 6,000 companies with at least 36 trillion USD in revenue have pledged mitigation action. "We have seen regional NDC-focussed dialogues, the EU climate diplomacy week, and the Climate Action Summit. Internationally, climate change stays high on the political agenda of G20 and G7 meetings, and statements feature in official communiqués.

However, there are worrying signs too. A review of G20 climate action reveals that 82% of energy supply still comes from fossil fuels, which remains heavily subsidised. Moreover, in the United States and in Brazil, commitment to the Paris Agreement has openly been questioned for political purposes, and there are indications that the rise of populist nationalism can be a threat to the Paris Agreement and the collective action it depends on.



## Paris

The Paris Agreement is still finding its bearings, more than two years on from an unexpectedly fast ratification in 2016. It is fair to say that the first round of NDC-pledges was hardly scrutinised at the time of submission. Prior to the adoption of the Paris Agreement, Intended Nationally Determined Contributions (INDCs) were considered the ‘opening pledges’ to give the Paris Agreement the foundation it needed. In many cases, after the adoption of the Paris Agreement, the INDCs were submitted as the first NDCs. It turned out, however, that collectively the first NDCs are insufficient and individually many NDCs are criticised for their lack of ambition. It is crucial to be moving from these initial NDCs to a more ambitious series of pledges that puts the world on track to deep decarbonisation.



## Purpose of Nationally Determined Contributions (NDCs)

NDCs are at the core of the Paris Agreement and the accomplishment of its long-term goals. NDCs represent efforts by each country to reduce national emissions and adapt to the effects of climate change. They require each Party to prepare, interconnect and sustain successive NDCs that it intends to achieve. Parties shall follow domestic mitigation measures, with the aim of achieving the purposes of such contributions.

The climate actions linked in these NDCs mostly determine whether the world accomplishes the long-term goals of the Paris Agreement: to hold the growth in global average temperature to well below 2°C, to survey efforts to limit the increase to 1.5°C, and to attain net zero emissions in the second half of this century.

### How Does the Process Work?

The NDCs create a productive response loop between national and international decision-making on climate change.

The pledge-and-review approach of the Paris Agreement involves a bottom-up process whereby each party decides on its own national commitment to the overall 2°C goal, based on their national circumstances and capabilities. In contrast to the top-down approach of the Kyoto Protocol, parties commit to update their commitments regularly, with a view to continually increase their targets every five years.



## The NDCs of some selected countries, at a glance

### United States of America (USA)

The NDC target is to reduce net GHG emissions by 26–28% below 2005 levels by 2025. On the Climate Action Tracker (CAT) rating scale, the current US NDC would fall into the “Insufficient” category. This means that it is not yet consistent with limiting warming to below 2°C, let alone with the Paris Agreement’s stronger 1.5°C limit.

Notwithstanding the declared intention of the US to withdraw from the Paris Agreement, which mandates a three-year notice period, the US NDC remains in place at least until the end of 2019.

USA Summary of pledges and targets		
<b>PARIS AGREEMENT</b>	Ratified	Yes, but communicated intent to withdraw
	2030 unconditional target(s)	26–28% below 2005 by 2025 [9–17% below 1990 by 2025 excl. LULUCF]
	Coverage LULUCF	Economy-wide, incl. LULUCF Included
<b>COPENHAGEN ACCORD</b>	2020 target(s)	17% below 2005 by 2020 incl. LULUCF [0–5% below 1990 by 2020 excl. LULUCF]
	Condition(s)	None
<b>KYOTO PROTOCOL (KP)</b>	Member of KP CP1 (2008–2012)	Not ratified
	Member of KP CP2 (2013–2020)	No
	KP CP1 target (below base year)	7% below 1990
	KP CP2 target (below base year)	N/A
<b>LONG-TERM GOAL(S)</b>	Long-term goal(s)	Obama Administration Mid-Century Strategy: 68–76% below 2005 by 2050 excl. LULUCF 76% below 1990 incl. LULUCF

### India

In its NDC, India has pledged to advance the emissions intensity of its GDP by 33 to 35 per cent by 2030 below 2005 levels. It has decided to enhance its forest cover which will engross 2.5 to 3 billion tonnes of carbon dioxide by 2030.

After accepting its final National Electricity Plan (NEP) in early 2018, India remains on track to overachieving its “2°C compatible” rated Paris Agreement NDC climate action goals. Estimates show India could achieve part of its NDC goal of a 40% non-fossil-based power capacity by 2030 more than decade earlier than targeted. Examination shows that India can achieve its NDC target with currently implemented policies. Projections show the share of non-fossil power generation capability will reach 60–65% in 2030, corresponding to a 40–44% share of electricity generation.

INDIA Summary of pledges and targets		
<b>PARIS AGREEMENT</b>	Ratified	Yes
	2030 unconditional target(s)	33% to 35% below 2005 emissions intensity of GDP by 2030 [477–493% above 1990 by 2030 excl. LULUCF] [176–184% above 2010 by 2030 excl. LULUCF]
	2030 conditional target(s)	Non-fossil share of cumulative power generation capacity 40% by 2030 [384–386% above 1990 by 2030 excl. LULUCF] [132–133% above 2010 by 2030 excl. LULUCF]
	Condition(s)	Transfer of technology and low cost international finance incl. from GCF
	Coverage LULUCF	Not specified Additional (cumulative) carbon sink of 2.5–3 GtCO <sub>2</sub> e by 2030
<b>COPENHAGEN ACCORD</b>	2020 target(s)	20–25% below 2005 emissions intensity of GDP by 2020 [256–277% above 1990 by 2020 excl. LULUCF] [71–81% above 2010 by 2020 excl. LULUCF]
	Coverage Condition(s)	Excluding agriculture sector None
<b>LONG-TERM GOAL(S)</b>	Long-term goal(s)	Per capita emissions never to exceed those of the developed world



**China**

China is positioning itself as a global climate leader, and its actions have a huge impact on global greenhouse gas emissions.

China has pledged to source 20% of its energy from low-carbon sources by 2030 and to cut emissions per unit of GDP by 60-65% of 2005 levels by 2030; in theory putting it on course to peak by 2027. China's NDC targets, if reached, would result in GHG emission levels of roughly 14.4-16.6 GtCO<sub>2</sub>e/yr. in 2030.

Discouragingly, a rise in coal consumption drove Chinese CO<sub>2</sub> emissions to a new high in 2017, and again in 2018. Recent studies have shown that China will however, achieve both its 2020 and 2030 pledges.

CHINA Summary of pledges and targets		
<b>PARIS AGREEMENT</b>	Ratified	Yes
	2030 unconditional target(s)	Peak CO <sub>2</sub> emissions latest by 2030 Non-fossil share: 20% in 2030 Forest stock: + 4.5 billion m <sup>3</sup> by 2030 compared to 2005 Carbon Intensity: -60% to -65% below 2005 by 2030  [33-47% above 2010 by 2030 excl. LULUCF for peaking and non-fossil targets] [35-53% above 2010 by 2030 excl. LULUCF for carbon intensity targets]
	Coverage	Economy-wide
	LULUCF	Unclear how LULUCF is included
<b>COPENHAGEN ACCORD</b>	2020 target(s)	Carbon intensity: -40% to -45% below 2005 by 2020 Non-fossil share of energy supply: 15% in 2020 Forest cover: +40 million ha by 2020 compared to 2005 Forest stock: + 1.3 billion m <sup>3</sup> by 2020 compared to 2005  [25% above 2010 by 2030 excl. LULUCF for non-fossil target] [26-37% above 2010 by 2030 excl. LULUCF for carbon intensity targets]
	Condition(s)	None

**Japan**

Japan's NDC includes an emissions reduction target of 26% below 2013 levels by 2030, which translates to a 18% reduction from 1990 levels, excluding land use, land-use change, and forestry (LULUCF), but including LULUCF credits in the target year. The target contains 37 MtCO<sub>2</sub>e of credits from LULUCF in 2030. A large share will come from forest management, as was the case for Japan's pre-2020 targets—this reduces the effectiveness of the target.

JAPAN Summary of pledges and targets		
<b>PARIS AGREEMENT</b>	Ratified	Yes
	2030 unconditional target(s)	26% below 2013 by 2030 [15% below 1990 by 2030 excl. LULUCF] [17% below 2010 by 2030 excl. LULUCF]
	Coverage	Economy-wide, incl. LULUCF and overseas credits for 2030
	LULUCF	LULUCF credits considered
<b>COPENHAGEN ACCORD</b>	2020 target(s)	3.8% below 2005 by 2020 [7% above 1990 by 2020 excl. LULUCF] [5% above 2010 by 2020 excl. LULUCF]
	Condition(s)	LULUCF credits considered
<b>KYOTO PROTOCOL (KP)</b>	Member of KP CP1 (2008-2012)	Yes
	Member of KP CP2 (2013-2020)	No
	KP CP1 target (below base year)	6% below 1990
	KP CP2 target (below base year)	N/A
<b>LONG-TERM GOAL(S)</b>	Long-term goal(s)	80% by 2050 (base year not specified) [78% to 80% below 1990 by 2050 excl. LULUCF] [79% to 81% below 2010 by 2050 excl. LULUCF]

In addition to the impact of use of credits from land use, land-use change, and forestry (LULUCF) on the NDC of Japan, the uncertainty relating to Japan's proposed overseas crediting system

(JCM) is a challenge to accurately assess the effectiveness of Japan's NDC.

**EU**

In October 2014 EU leaders agreed on a 2030 climate and energy policy framework, putting forward a legally binding EU target of at least 40% reduction in domestic emissions by 2030 in comparison to 1990. In contrast to the period before 2020, it will also make no use of international credits, as it refers to domestic emissions reductions only. This target became the basis for the EU's first NDC.

Achievement of the renewable energy and energy efficiency goals, agreed in June 2018, would result in greenhouse gas emissions reductions approaching 45%. The European Parliament has called for the adoption of a more ambitious emissions reduction target of 55%, and the European Council pointed out, in its position for COP24, that it would adopt more ambitious renewable energy and energy efficiency targets.

A study showed that emissions reduction of up to 62% would be possible if best practice policies found in some EU member states are applied across the EU.

EU Summary of pledges and targets		
<b>PARIS AGREEMENT</b>	Ratified	Yes
	2030 unconditional target(s)	At least 40% below 1990 by 2030 [29% below 2010 by 2030]
	Coverage	Economy-wide GHG coverage
<b>COPENHAGEN ACCORD</b>	2020 target(s)	20-30% below 1990 by 2020
	Condition(s)	Developed countries commit to comparable efforts and developing countries contribute according to capabilities.
<b>KYOTO PROTOCOL (KP)</b>	Member of KP CP1 (2008-2012)	Yes
	Member of KP CP2 (2013-2020)	Yes
	KP CP1 target (below base year)	8% below 1990
	KP CP2 target (below base year)	20% below 1990
<b>LONG-TERM GOAL(S)</b>	Long-term goal(s)	80-95% below 1990 by 2050 [76-94% below 2010 by 2050]

**Brazil**

Brazil ratified the Paris Agreement on September 21, 2016, committing to reduce emissions to 1.3 GtCO<sub>2</sub>e by 2025 and 1.2 GtCO<sub>2</sub>e by 2030, as stated originally in its INDC, which is equivalent to 37% and 43% below 2005 emissions levels including LULUCF.

BRAZIL Summary of pledges and targets		
<b>PARIS AGREEMENT</b>	Ratified	Yes
	2030 unconditional target(s)	1.3 GtCO <sub>2</sub> e (GWP100; IPCC SAR) by 2025 incl. LULUCF [69% above 1990 levels by 2025 excl. LULUCF] [2% below 2010 levels by 2025 excl. LULUCF] "Indicative": 1.2 GtCO <sub>2</sub> e (GWP100; IPCC SAR) by 2030 incl. LULUCF [52% above 1990 levels by 2030 excl. LULUCF] [12% below 2010 levels by 2030 excl. LULUCF]
	Coverage	Economy-wide, incl. LULUCF
	LULUCF	1) Zero illegal deforestation in the Brazilian Amazonia by 2030, 2) Restoring and reforesting 12 million ha of forests by 2030, 3) Enhancing sustainable native forest management
<b>COPENHAGEN ACCORD</b>	2020 target(s)	36.1-38.9% below BAU by 2020 incl. LULUCF [117-134% above 1990 by 2020 excl. LULUCF]
	Condition(s)	None
<b>LONG-TERM GOAL(S)</b>	Long-term goal(s)	Strive for a transition towards energy systems based on renewable sources and decarbonisation of the global economy by the end of the century.

While the nominal reduction targets appear to be challenging and ambitious at first glance, after taking into account that the base year for the NDC targets (2005) was a year with particularly high emissions, the real target represents very little effort beyond current ambition levels. Between 2005 and 2012, LULUCF emissions decreased 86% in Brazil thanks to the successful implementation of anti-deforestation policies, resulting in a decrease of 55% in total net emissions in the same period. This means that the NDC effectively translates to a decrease of only 7% in emissions incl. LULUCF below 2012 levels by 2030.

### South Africa

South Africa's NDC, 2020 pledge and long-term target pledge are consistent with its long-term goal to constrain its emissions to follow a peak-plateau-decline (PPD) trajectory. Based on this, South Africa's emissions should peak between 2020 and 2025, plateau for approximately a decade and then decline in absolute terms.

South Africa's NDC targets an absolute emissions level in the range of 398–614 MtCO<sub>2</sub>e including LULUCF over the period 2025–2030. Assuming LULUCF remains at the average level over 2000–2012, this NDC translates to an equivalent of a 17–78% increase above 1990 levels excluding LULUCF, according to Climate Action Tracker (CAT).

SOUTH AFRICA Summary of pledges and targets		
<b>PARIS AGREEMENT</b>	Ratified	Yes
	2030 unconditional target(s)	Emissions incl. LULUCF of between 398–614 MtCO <sub>2</sub> e over 2025–2030 [17–78% above 1990 by 2030 excl. LULUCF] [26% below to 12% above 2010 by 2030 excl. LULUCF]
	Condition(s)	The finalisation of an ambitious, fair, effective and binding multilateral agreement under the UNFCCC at COP21.
	Coverage	Economy-wide, all sectors (including AFOLU), six GHGs
<b>COPENHAGEN ACCORD</b>	2020 target(s)	34% below BAU by 2020 incl. LULUCF [17–69% above 1990 by 2020 excl. LULUCF] [26% below to 7% above 2010 by 2020 excl. LULUCF]
	Condition(s)	A fair, ambitious and effective agreement under the Climate Change convention and the Kyoto Protocol and the provision of support from the international community. 2025 target: 42% below BAU by 2025 incl. LULUCF [17–78% above 1990 by 2025 excl. LULUCF] [26% below to 12% above 2010 by 2025 excl. LULUCF]
<b>LONG-TERM GOAL(S)</b>	Long-term goal(s)	Stable emissions over 2025–2035, followed by a decline in emissions to between 212–428 MtCO <sub>2</sub> e incl. LULUCF by 2050 [35% below to 25% above 1990 by 2050, excl.]

It is highlighted in the NDC that equity, economic and social development and poverty eradication are South Africa's top priorities. It is not clear how these set priorities would impact on the revised of South Africa's NDC in 2020.

### The Current Pledges are Impressive - But Still Not Enough

The gap between what should be done to reduce greenhouse gas emissions and what is currently occurring is larger than ever, according to the Emission Gap Report by UN Environment. The annual flagship publication presents the assessment of the so-called 'emissions gap' – the gap between anticipated emission levels in 2030, compared to levels consistent with the Paris thresholds of 2°C and 1.5°C of global temperature increase.



Evidence outlined in the 2018 Gap Report shows global emissions have reached historic levels at 53.5 GtCO<sub>2</sub>e, with no signs of peaking. Similar conclusions have been reported in the latest Greenhouse Gas Bulletin of the World Meteorological Organization and in the IEA 2018 World Energy Outlook. Even assuming that countries act on their pledges under the Paris climate pact, global emissions will continue to rise and the global average temperature is projected to increase by about 3.2°C by the end of this century. To stay in line with the Paris targets, countries' efforts must triple to meet the 2°C goal and increase fivefold to meet 1.5°C.

### Where do we go from here?

While some countries seem to be progressing well with their NDC targets, especially with regards to the development of structures and processes, tangible progress in some countries is limited and the understanding of the challenges associated with the NDC process is limited. Experts are now generally less confident with the progress and the lack of long-term low GHG emission development strategies raises the question of whether the enthusiasm observed publicly is really aligned with realities on the ground.

### Second Round of Pledges

#### Governance

With the second round of NDCs due in 2020, effective governance can help countries take on this significant task. The following are four key governance-related considerations that countries may focus on ahead of the next round of NDCs.

- 1. Political leadership** at the highest levels (e.g., Head of State or Government) will be needed in order to develop and articulate a clear, long-term, national vision for sustainable development in line with the goals of the Paris Agreement.
- 2. Institutional frameworks** will be important not only in implementing current NDCs but also in preparing subsequent contributions. Clear roles, responsibilities, and coordination mechanisms can empower central and sectoral line ministries in putting forward and contributing to more ambitious targets.
- 3. Stakeholder engagement** on climate action can lead to increased ambition. Stakeholder groups that are central to NDC implementation (e.g., local governments, the private sector, civil society) will also be fundamental in formulating future NDCs.
- 4. Monitoring and reporting frameworks** can increase efficiency and improve understanding of progress to date and, in turn, what can be achieved going forward.



## Sectors

The focus of most governments in the past two years has been on the implementation of the current NDC pledges and less attention has been given to preparing for the second round of more ambitious pledges. As the 1.5 degrees report shows, to stay well within two degrees, full decarbonisation of the economy will be necessary for the second half of this century. By extension, all sectors will need to be increasingly strict on reducing greenhouse gas emissions. The optimal speed and timing of transition can vary per sector but development paths in all sectors, will need to move towards deep transformations resulting in net-zero GHG emissions in the second half of this century. Stakeholder dialogues will be required, in which sector stakeholders discuss the plausibility of low-carbon pathways and establish a shared understanding of the topic.

## Financing

Many countries are in the process of implementing actions towards achieving the targets of their current NDC pledges. However, progress, particularly in developing countries, is constrained by access to financial resourcing. Mobilisation of finance to support the implementation of NDCs remains a critical aspect of the UNFCCC negotiations and the next round of pledges.

## Conclusion

Now, under two years before the next round of NDC pledges, it is time to broaden the domestic discussions beyond the first pledge and take a 'whole of government' approach. The next round of pledges will need to be more ambitious and this will require engaging stakeholders at the national and sectoral levels in dialogues to explore decarbonisation pathways, to create a vision for the future, and to develop a long-term strategy which could achieve agreed vision. This should be considered in parallel with a continued focus on near-term implementation.



**United Nations**  
Climate Change

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