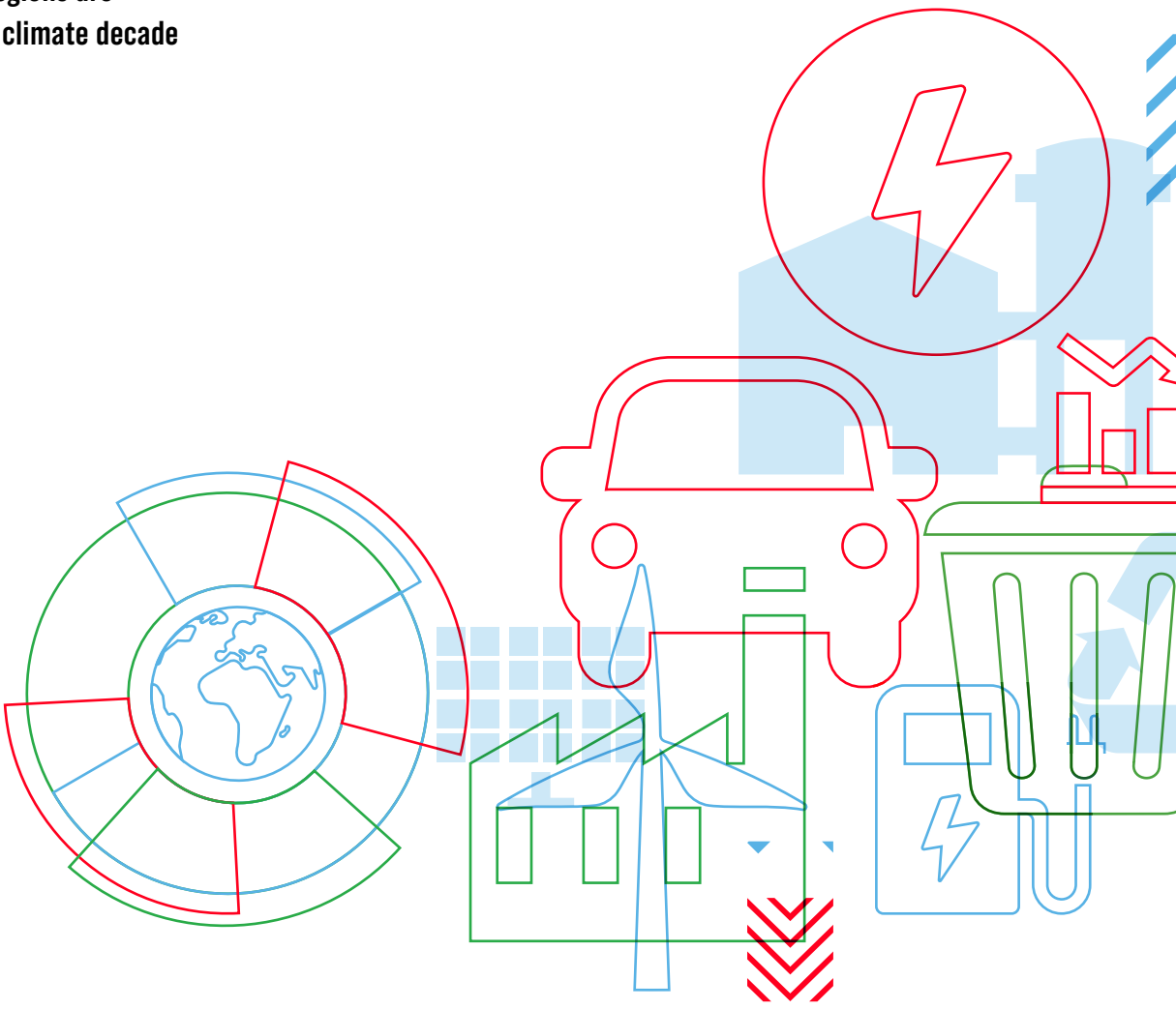
2019 UPDATE

GLOBAL STATES
AND REGIONS

ANNUAL DISCLOSURE

How states and regions are
preparing for the climate decade



CDP
DISCLOSURE INSIGHT ACTION

THE CLIMATE GROUP

FOREWORD

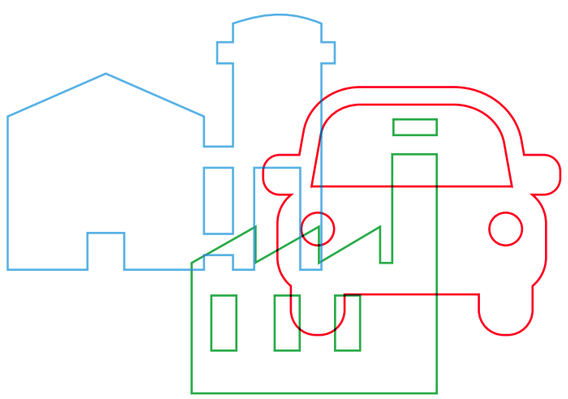
In this pivotal year, ahead of national governments submitting increased pledges of ambition to the United Nations, we need all stakeholders from across states and regions, business, cities and civil society to come together and show how they are able to support an increase in ambition to reduce global emissions.

From this year's Global States and Regions Annual Disclosure, states and regions have demonstrated that they are playing an important role. As things stand, leading states and regions have already met their emissions reduction targets for 2020 and are in line with what is required to meet the 1.5°C trajectory, building an excellent foundation for the next decade. If they increase the ambition of their long-term targets, they can support their national counterparts to close the emissions gap.

As the High-Level Champion for COP25 responsible for engaging business, subnational governments and civil society, I find this is extremely encouraging and look forward to seeing states and regions showcase their action at COP.

However, it is also clear that the number of states and regions disclosing their data to The Climate Group and CDP is a drop in the ocean compared to the number of states and regions in the world. In order for us to accurately measure the action being taken at the state and regional level, we need more governments to disclose.

There also needs to be an increase in the number of state and regional governments that are fully equipped to measure and manage their greenhouse gas emissions. Over five years of the Global States and Regions Annual Disclosure, while we have seen an increase in the number of governments disclosing data on their climate action, the number of governments reporting data of a sufficient quality required for the projection analysis has stayed roughly the same. More governments reporting data on their emissions breakdown and emissions reduction targets would provide a more accurate picture of future emissions trends.



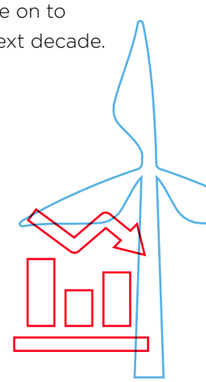
To track progress, the capacity and expertise of states and regions to measure their emissions and build on current targets must be improved.

To track progress, the capacity and expertise of states and regions to measure their emissions and build on current targets must be improved. Greater coordination with national governments to share emissions data, as well as more investment and resources to help states and regions improve their measurement and reporting practices are essential.

This is more important than ever, as there is very little time to lose. As 2020 draws nearer, we are reminded of the fact that emissions need to be halved within the next decade. In the latest projection analysis in this report, by 2030 states and regions will not be on track to achieving the 1.5°C goal unless they increase their climate ambition.

For all governments, the 2020s need to be the decade of climate action, where we see both an increase in the number of targets being set by governments and an increase in ambition of those targets. For those that have achieved their 2020 targets, let us take a moment to celebrate, share what's worked and move on to repeat the process over the next decade.

Gonzalo Muñoz,
High-Level COP Champion



THE 2020s NEED TO BE THE DECADE OF CLIMATE ACTION

KEY FINDINGS

124 state and regional governments from 35 countries disclosed their climate action – an increase of 182% since 2015. They represent 669 million people and 20% of the global economy.

STATES AND REGIONS ARE TAKING AMBITIOUS CLIMATE ACTION

651
ACTIONS TO ADAPT **TO CLIMATE CHANGE**

3821
ACTIONS TO MITIGATE **CLIMATE CHANGE ACROSS 11 SECTORS**

AN AVERAGE **14%**
EMISSIONS REDUCTION BY **STATES AND REGIONS AS GLOBAL EMISSIONS CONTINUE TO RISE**[1]

124
STATES AND REGIONS

669
MILLION PEOPLE

20%
OF GLOBAL ECONOMY

SEE PAGE 22-23 for a map of disclosing states and regions

[1] Compared to their base year

STATES AND REGIONS IN THE UNDER2 COALITION ARE LEADING THE WAY

86
DISCLOSING GOVERNMENTS **ARE MEMBERS OF THE UNDER2 COALITION**

9
GOVERNMENTS FROM THE **UNDER2 COALITION HAVE SET NET-ZERO EMISSIONS TARGETS**

77%
OF ALL TARGETS WERE **DISCLOSED BY MEMBERS OF THE UNDER2 COALITION**

STATES AND REGIONS ARE LEADERS IN RENEWABLE ENERGY

7
STATES AND REGIONS HAVE **100% RENEWABLE ELECTRICITY**

12
STATES AND REGIONS HAVE **100% RENEWABLE ENERGY OR ELECTRICITY TARGETS**

ON AVERAGE **45%**
OF ELECTRICITY GENERATED **IN STATES AND REGIONS IS RENEWABLE COMPARED TO GLOBAL AVERAGE OF 25%**

ARE WE ON TRACK?

2020
STATE AND REGIONAL TARGETS ARE IN LINE WITH THE 1.5˚C GOAL

2030
STATES AND REGIONS NEED TO SET MORE AMBITIOUS 2030 TARGETS

2050
11 STATES AND REGIONS HAVE SET A NET-ZERO EMISSIONS TARGET BUT MORE MUST FOLLOW

PROJECTED IMPACT OF DISCLOSED TARGETS

In the short-term, disclosing state and regional governments are more ambitious than their national counterparts, but more must be done to achieve the required emission reductions to limit global warming to 1.5°C above pre-industrial levels.

Projecting the disclosed region-wide greenhouse gas (GHG) emissions reduction targets of states and regions, the red curve in **Figure 1** displays the expected trend in their emissions from 2017 to 2050. This is compared to a combined Nationally Determined Contribution (NDC) emissions trajectory up to 2030 of the seven countries in which those states and regions are located: Australia, Brazil, Canada, the European Union, Mexico, Norway, and the USA.

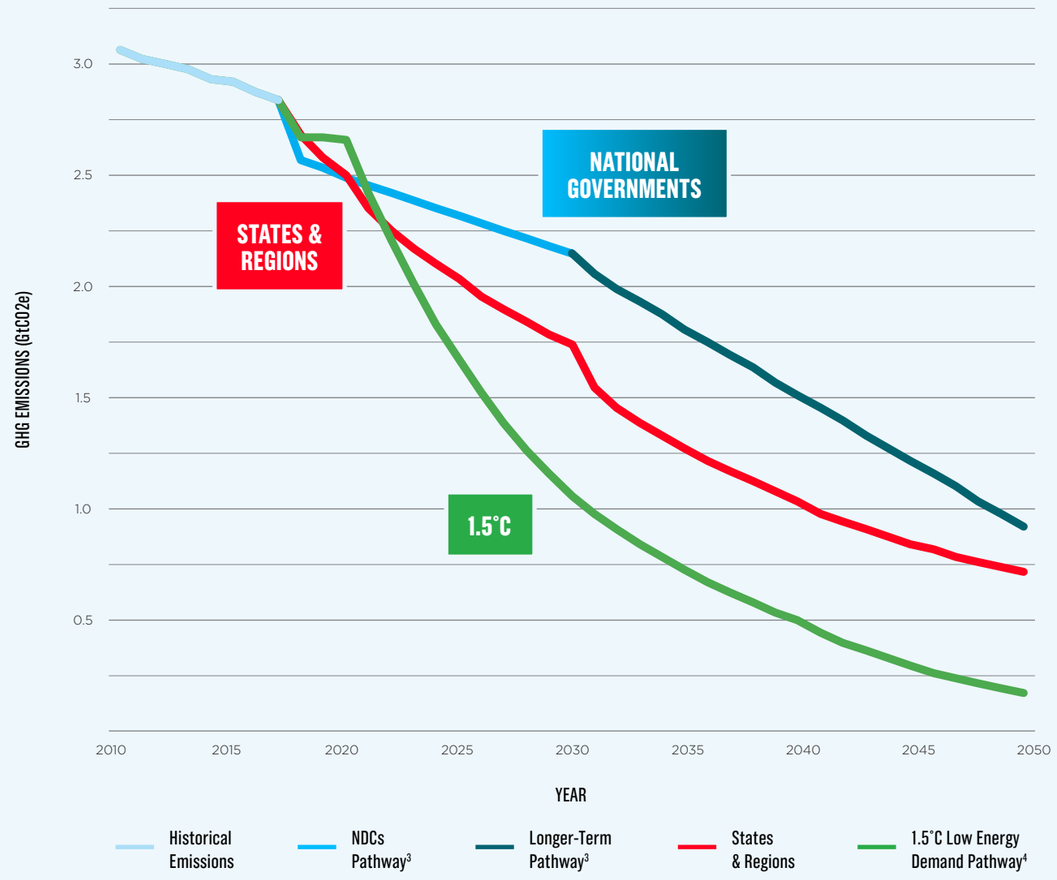
Our findings show that states and regions have ambitious targets leading up to 2020

The Longer-Term Pathway curve displays projected emissions of pledges and targets between 2030 and 2050 from the seven countries. For national governments without a long-term target, their NDC targets have been carried forward to 2050. Both the NDCs Pathway and Longer-Term Pathway curves are adjusted to indicate the emissions trajectories if these national targets were implemented by the states and regions in the analysis. The green curve indicates the projected emissions trajectory that states and regions would need to follow to keep global warming to 1.5°C.

Our findings show that states and regions have ambitious targets leading up to 2020, but they need to raise the level of ambition of their 2030 targets. **Figure 1** displays a slowing rate of reduction after 2020 and predicts that the largest gap in emissions between the trajectories of States and Regions and 1.5°C will occur in 2030. The emissions gap between the NDCs and 1.5°C is also at its largest in 2030.

With global emissions in 2030 required to be approximately 55% lower than in 2017[2], neither states and regions nor national governments are on track to limit global warming to 1.5°C.

FIGURE 1: Projected greenhouse gas emissions to 2050



In the long-term, the targets set by states and regions are not ambitious enough to reach net-zero emissions by 2050, in alignment with the 1.5°C goal. Of the states and regions included in this analysis, only 11 governments have set a net-zero emissions target. For emissions to reach net-zero by 2050, more governments must follow suit and raise their ambition.

[2] UNEP (2018). Olhoff, A. and Christensen, J.M., 2018. Emissions Gap Report 2018. Available at: www.wedocs.unep.org/bitstream/handle/20.500.11822/26895/EGR2018_FullReport_EN.pdf?sequence=1&isAllowed=y

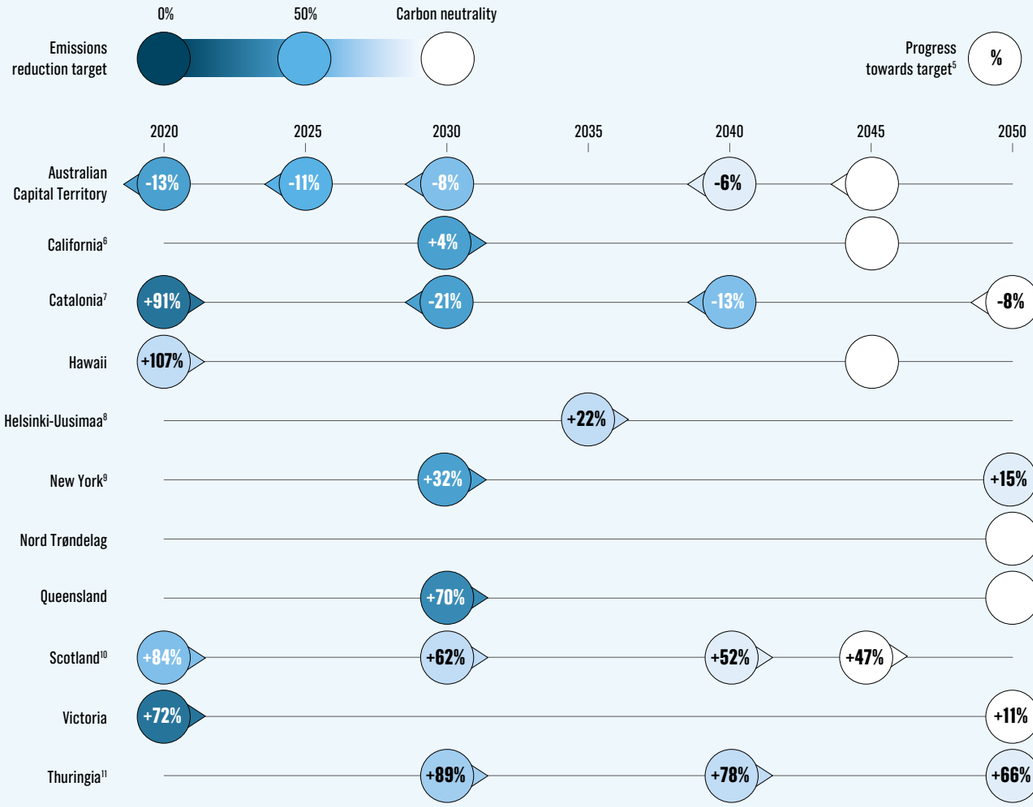
[3] Climate Analytics and NewClimate Institute (2019) Climate Action Tracker. Available at: www.climateactiontracker.org/countries

[4] Integrated Assessment Modeling Consortium & International Institute for Applied Systems Analysis (2018) Huppmann, D. et al. IAMC 1.5°C Scenario Explorer and Data hosted by IIASA. Available at: data.ene.iiasa.ac.at/iamc-1.5c-explorer

ACHIEVING NET-ZERO EMISSIONS

The Intergovernmental Panel on Climate Change (IPCC) defines net-zero carbon dioxide (CO2) emissions, also known as carbon neutrality, as the balance between anthropogenic CO2 emissions and anthropogenic CO2 removals over a specified period.

FIGURE 2: States and regions with region-wide net-zero emissions targets and their progress



[5] Progress for fixed level targets with no absolute emissions reduction target included have not been calculated

[6] California's Executive Order B-55-18 aims to achieve carbon neutrality by 2045 and includes a target of 80% reductions in carbon emissions by 2050 and the removal of carbon dioxide from the atmosphere through sequestration in forests, soil and other landscapes

[7] Catalonia's 2020 target has a base year of 2005, whist other targets have 1990 as their base year

[8] Helsinki-Uusimaa aims to be carbon neutral by 2035 by reducing emissions by 80% and offsetting the remaining 20%

[9] New York State has committed to reduce emissions by 85% and offset the remaining 15%

[10] Scotland's updated targets have been agreed by Parliament on 25 September 2019, but are not yet in force

[11] Thuringia aim to pursue carbon neutrality by offsetting the remaining 5% of emissions through the development of natural carbon stocks

The Scottish Government has set three targets ahead of their net-zero 2045 target and is already making excellent progress towards them by reducing current emissions by 47% since 1990.

The *IPCC Special Report: Global Warming of 1.5°C*[12] states that global CO2 emissions must reach net-zero around 2050 to limit global warming to 1.5°C.

Recognizing the different contexts of states and regions around the world, and equity principles such as historical contributions to global emissions and the capability to reduce future emissions, the target year for achieving carbon neutrality may differ across different jurisdictions.

Figure 2 displays states and regions who have publicly disclosed region-wide net-zero emissions targets and the progress made towards these.

It is encouraging to not only see the progress being made by these leading governments, but also that some of them are setting intermediate targets towards net-zero.

It is encouraging to not only see the progress being made by these leading governments, but also that some of them are setting intermediate targets towards net-zero. The Scottish Government has set three targets ahead of their net-zero 2045 target and is already making excellent progress towards them by reducing current emissions by 47% since 1990. This is a great example of using intermediate targets to stay on track towards reaching the long-term goal.

Another key component of achieving net-zero emissions is to institutionalize targets into law. In June 2019, New York State passed new climate legislation updating their previous 2050 target to net-zero. The state has committed to reduce GHG emissions by 85% and offset the remaining 15% through CO2 removal projects such as reforestation, carbon capture and sequestration, and the restoration and sustainable management of natural and urban forests.

NEW YORK STATE CLIMATE LEGISLATION

REDUCE CARBON EMISSIONS BY 85%

OFFSET 15%

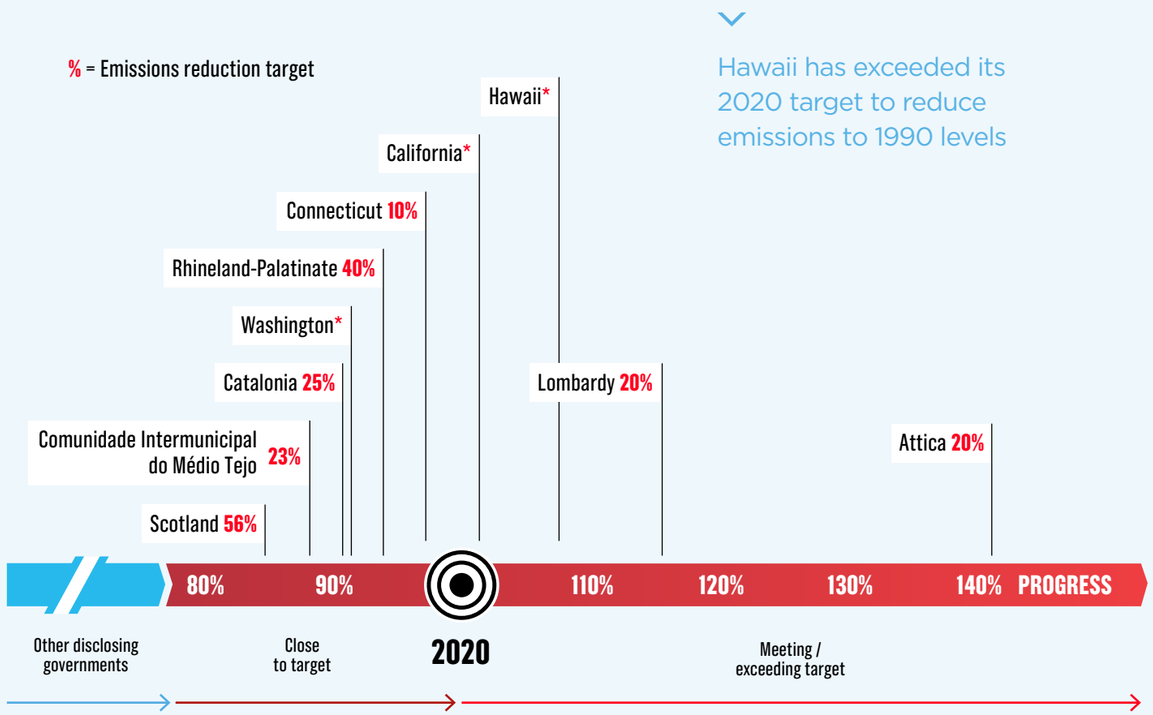
2050 NET-ZERO

[12] IPCC (2018). Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp. Summary for Policymakers. In: Global Warming of 1.5°C. Available at: www.ipcc.ch/sr15/chapter/spm/

PROGRESS TO TARGETS

To achieve the goal of limiting global warming to 1.5°C above pre-industrial levels, global GHG emissions are required to peak in 2020. As seen in Figure 1, states and regions have set 2020 targets which set their emissions trend below the 1.5°C trajectory for that year.

FIGURE 3: Progress to 2020



*Target to reduce emissions to 1990 levels

Hawaii has exceeded its 2020 target to reduce emissions to 1990 levels

Thuringia has completed 89% of its 70% emissions reduction target

FIGURE 4: Progress to 2030

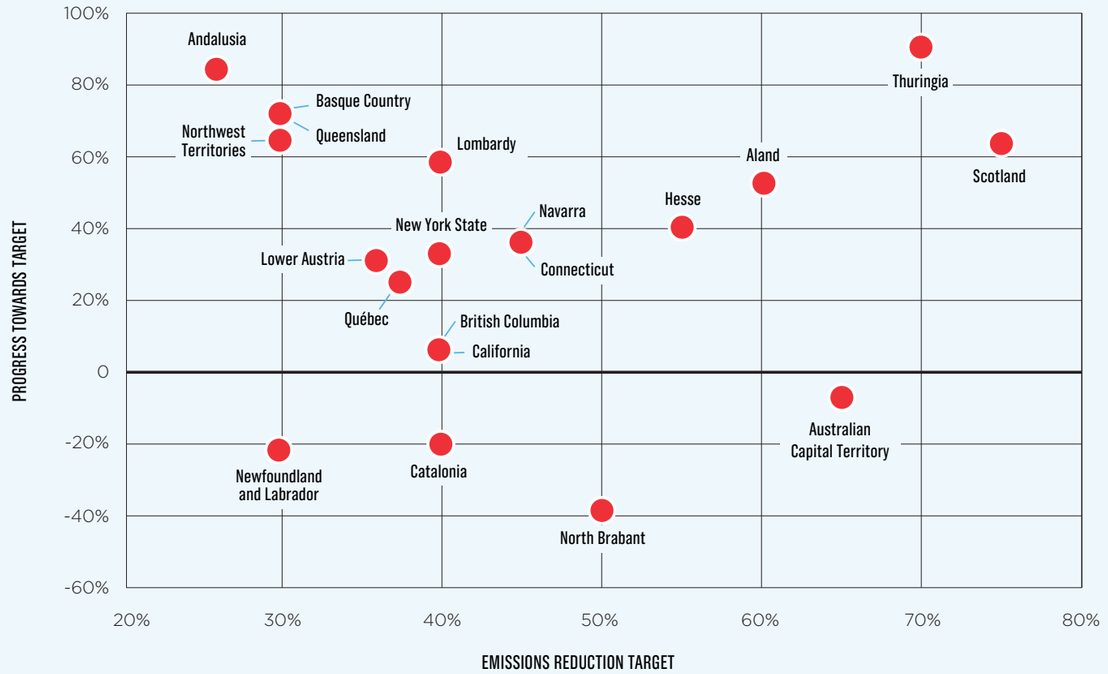


Figure 3 displays the states and regions who have achieved or are close to achieving their 2020 targets.

With excellent progress being made towards 2020, states and regions have shown that they can deliver on their commitments.

The projection analysis has already shown that states and regions are not in line with the 1.5°C trajectory in 2030. With excellent progress being made towards 2020, states and regions have shown that they can deliver on their commitments.

They now need to repeat this process by raising their ambition ahead of 2030.

Figure 4 shows the progress being made towards 2030 targets, with 80% of governments making positive reductions. Thuringia, a net-zero target government, has already completed 89% of its 70% emissions reduction target.

Scotland, who has recently developed a new set of emissions reduction targets, has completed 62% of its 75% target.

CLIMATE ACTION

Outlined in this section are some of the thematic areas where states and regions have demonstrated that they are playing an important role in mitigating and adapting to climate change. These include:

- **ELECTROMOBILITY**
- **CIRCULAR ECONOMY**
- **ADAPTATION**
- **FORESTS**
- **RENEWABLE ENERGY**

This year, states and regions reported 3821 mitigation actions that they are implementing across 11 different sectors including energy, land-use and waste.

These actions are helping states and regions to make progress towards their emissions reduction targets outlined in the first half of the report.

To adapt to climate change, states and regions reported that they are implementing 651 adaptation actions.

ELECTRO-MOBILITY

59 governments are installing electric vehicle charging infrastructure in their jurisdictions.

ANDALUSIA, SPAIN

has launched a roadmap to accelerate the decarbonization of transport, which includes measures such as increasing the availability of public and private charging infrastructure.

CIRCULAR ECONOMY

44 governments are currently implementing practices and policies to promote circular economy.

VICTORIA, AUSTRALIA

is developing a circular economy policy and action plan to be completed by late 2019. This policy will include actions to help all Victorian businesses, governments, communities and households reduce waste and make the best use of resources.

ADAPTATION

According to the *IPCC Special Report: Global Warming of 1.5°C*, human activity is estimated to have already caused approximately 1.0°C of global warming above pre-industrial levels.

States and regions around the world are experiencing the effects of this warming. This year, they reported over 700 impacts that they are currently facing or expect to face. Over 75% of these impacts were reported to be serious or extremely serious.

These impacts range from coastal erosion in Nariño, Colombia and sea level rise in KwaZulu-Natal, South Africa, to thawing permafrost in Northwest Territories, Canada and flooding in the Basque Country, Spain.

48%
OF GOVERNMENTS ARE FACING, OR WILL FACE, WATER STRESS

The severity of the physical impacts and subsequent socio-economic consequences associated with climate change are projected to increase between present-day and global warming of 1.5°C but will be even more extreme in a world of between 1.5°C and 2°C of warming. For example, global warming of 2°C could potentially double the proportion of the global population exposed to increased water stress when compared with a 1.5°C scenario.

Almost half of all governments have reported that their jurisdiction already faces, or anticipates facing, water stress. This provides further confirmation that we must strive towards the 1.5°C goal to reduce the effects of these impacts.

To adapt, state and regional governments are planning and implementing hundreds of cross-sectoral measures globally.

WESTERN CAPE, SOUTH AFRICA

reported seven different actions to combat increasing water stress. The government has installed smart water metering systems across a range of public buildings, developed a water conservation awareness campaign, and implemented water use restrictions.

PERNAMBUCO, BRAZIL

have built and renovated 67 water desalination units, in response to increased water stress, to diversify their water supplies and provide almost 5,000 homes with water.

ABRUZZO, ITALY

is adapting to more frequent heatwaves by holding seminars for school students to teach them how and why heatwaves occur, as well as educating them on the risks to human health that heat exposure poses.

HUÁNUCO, PERU

is responding to an increase in the number of hot days by planting trees in public spaces and along roads for their shading and cooling effects.

ADAPTATION

Figure 5 shows the variety of actions that states and regions are taking to combat the top ten most reported impacts, displaying the complexity and challenge of adapting to climate change. These actions demonstrate the multifaceted approach states and regions are taking to minimise the impacts of climate change.

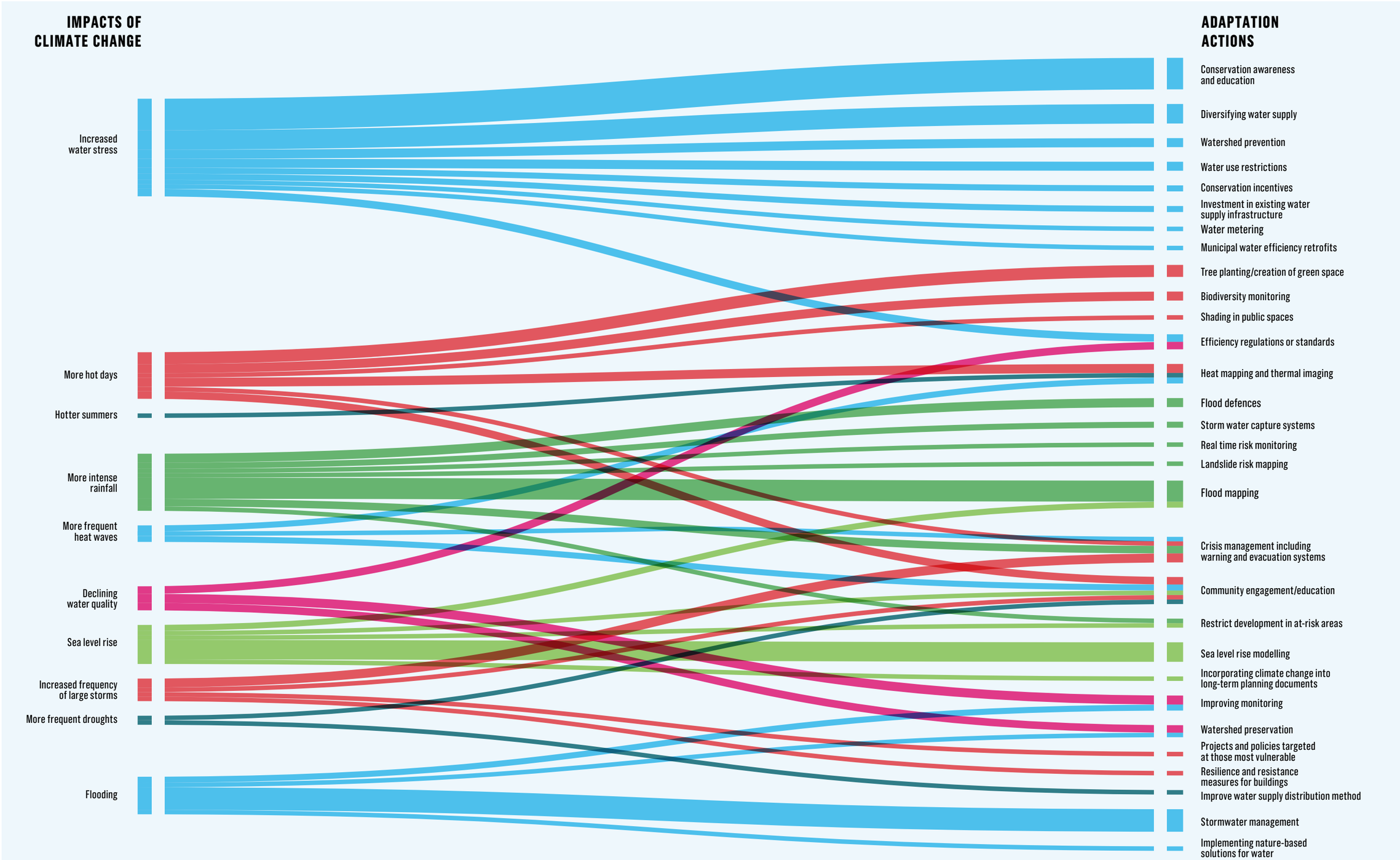


FIGURE 5: Mapping the actions that states and regions are taking to adapt to climate change

FORESTS

LATIN AMERICAN STATES AND REGIONS REPORTED SMALL-SCALE AGRICULTURE AND COLONIZATION, LIVESTOCK FARMING AND FIRES AS KEY DRIVERS OF DEFORESTATION

Forests are crucial to mitigating the impacts of climate change due to their carbon sequestration capacity and cooling effects.

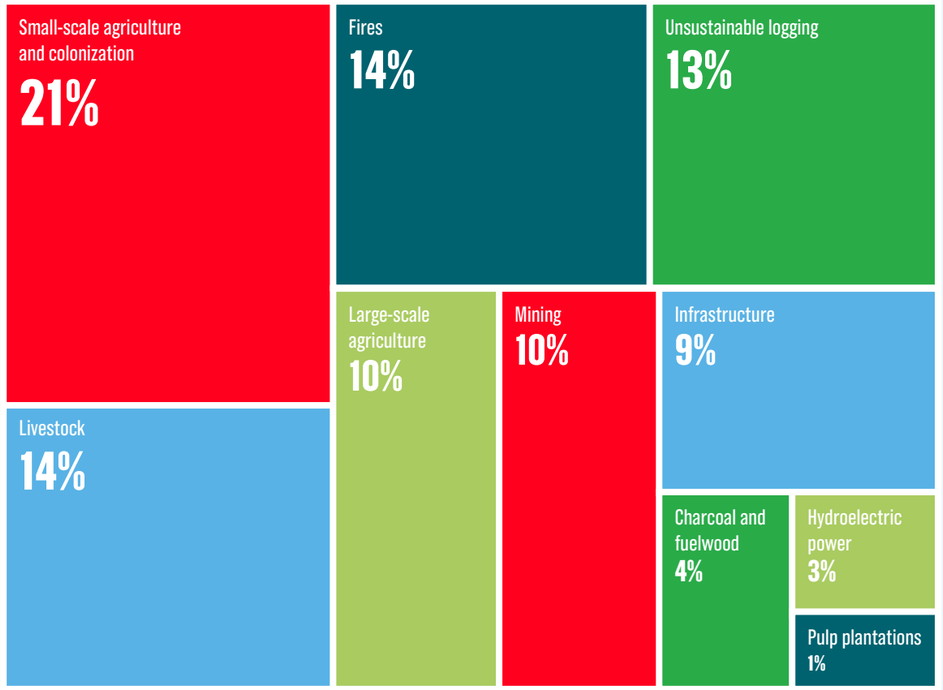
However, alarming rates of deforestation continue worldwide, occurring most notably in the Amazon basin, home to the world's largest tropical rainforest.

Not only do these activities result in the loss of forests as carbon sinks and climate regulators, impacting their mitigation potential, but they also cause the release of carbon dioxide into the atmosphere directly increasing the severity of climate change.

States and regions with high emissions from the Agriculture, Forestry and Other Land Use (AFOLU) sector must work on halting deforestation. Setting measurable deforestation reduction targets within a given timeframe is key to making substantive progress.[13]

Governments must also develop new policies and legislation with a primary focus on incentive-based solutions, while ensuring that forest-based communities, indigenous people, and smallholders are key beneficiaries. This sort of transformational change will need a clear, practical process or pathway that governments, in collaboration with business and communities, can follow to transform their economies and reduce carbon emissions.

FIGURE 6: Drivers of forest degradation and deforestation in Latin American states and regions



[13] Earth Innovation Institute (2018). Stickler, CM, AE Duchelle, JP Ardila, DC Nepstad, OR David, C Chan, JG Rojas, R Vargas, TP Bezerra, L Pritchard, J Simmonds, JC Durbin, G Simonet, S Peteru, M Komalasari, ML DiGiano, MW Warren. 2018. The State of Jurisdictional Sustainability. www.earthinnovation.org/state-of-jurisdictional-sustainability

RENEWABLE ENERGY

45% OF ELECTRICITY GENERATED IN REPORTING STATES AND REGIONS IS RENEWABLE

The *IPCC Special Report: Global Warming of 1.5°C* says that to remain on a 1.5°C trajectory, renewables will need to supply 70-85% of global electricity demand by 2050, with fossil fuels almost phased out.

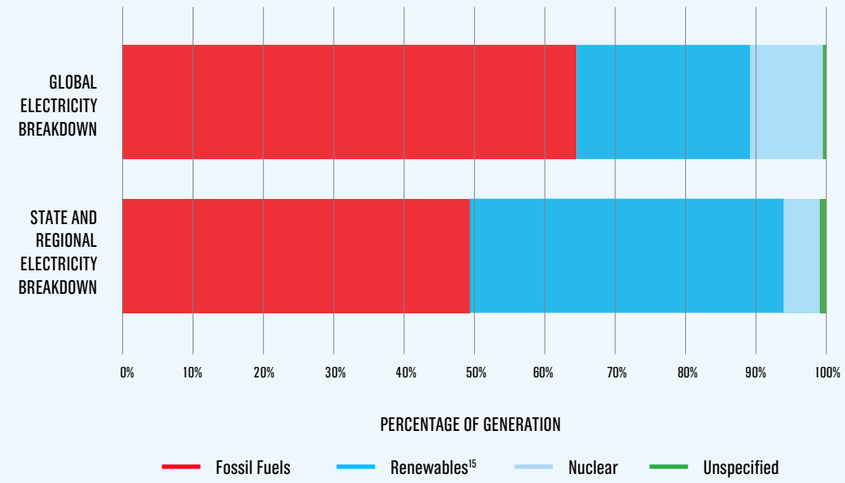
Twelve states and regions have disclosed even greater ambition, with 100% renewable electricity or energy targets by 2050 or earlier. The transformation of the electricity system is a key component to achieving the net-zero goal. Five of these states and regions have also set region-wide net-zero emissions reduction targets: Australian Capital Territory, Catalonia, Hawaii, Scotland and Thuringia.

Figure 7 shows that disclosing state and regional governments are ahead of the global trend in transforming the electricity system. On average, 45% of all electricity generated in the reporting states and regions comes from renewable sources, compared to only 25% globally.

12 states and regions have set 100% renewable electricity or energy targets by 2050 or earlier

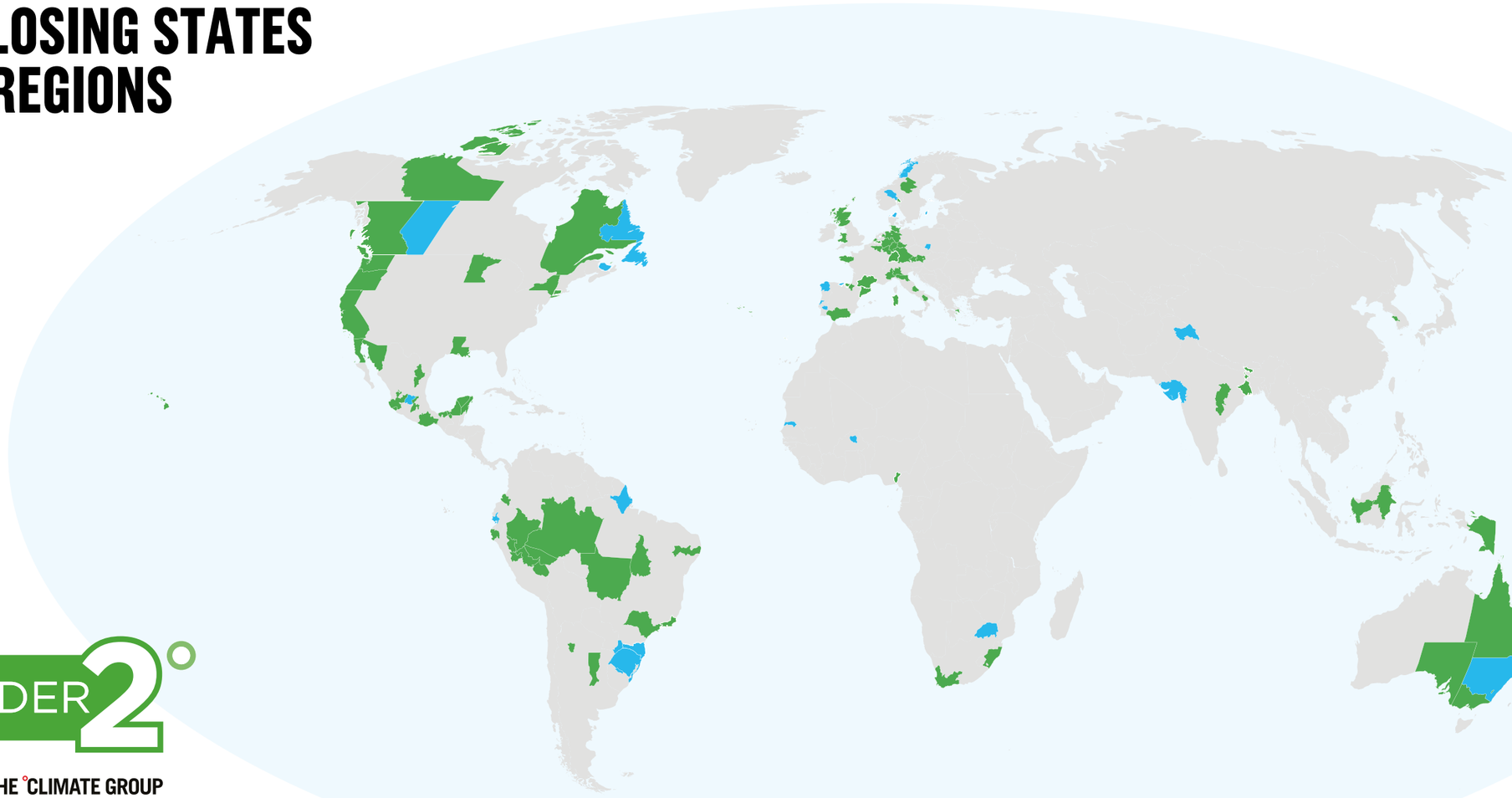
Seven states and regions reported that they are already powered by 100% renewable electricity: Akershus, Jämtland, Nord Trøndelag, Nordland, Oppland, Piura and Tocantins.

FIGURE 7: Electricity generation sources in reporting states and regions versus global average in 2017[14]



[14] IEA Electricity Information 2019 https://webstore.iea.org/electricity-information-2019
[15] State and regional renewable electricity breakdown: 57.1% hydro-electric power, 29.2% wind power, 6.0% biomass, 5.3% solar power, 2.4% geothermal energy

DISCLOSING STATES AND REGIONS



124 GOVERNMENTS from **35** COUNTRIES

REPRESENTING:

669 MILLION PEOPLE

$17 TRILLION

TOTAL GDP (USD)

UNDER 2°

SECRETARIAT THE °CLIMATE GROUP

MEMBERS OF THE UNDER2 COALITION

OTHER DISCLOSING STATES AND REGIONS

The Under2 Coalition has been named as one of the international initiatives with the highest potential for emissions reduction.

Source: Global Climate Action from Cities, Regions and Businesses Report, 2019

EUROPE	STATES AND REGIONS
Austria	Lower Austria, Upper Austria
Belgium	Wallonia
Denmark	North Denmark Region
Finland	Aland, Helsinki-Uusimaa, Southern Ostrobothnia
France	Brittany, Occitanie
Germany	Baden-Württemberg, Bavaria, Hesse, Lower Saxony, North Rhine-Westphalia, Rhineland-Palatinate, Schleswig-Holstein, Thuringia
Greece	Attica
Italy	Abruzzo, Basilicata, Emilia-Romagna, Lombardy, Piedmont, Sardinia
Netherlands	Drenthe, Flevoland, North Brabant, South Holland
Norway	Akershus, Nord Trøndelag, Nordland, Oppland
Poland	Opole Voivodeship
Portugal	Azores, Comunidade Intermunicipal do Baixo Alentejo, Comunidade Intermunicipal do Médio Tejo, Comunidade Intermunicipal do Oeste, Comunidade Intermunicipal do Tâmega e Sousa, Madeira
Spain	Andalusia, Basque Country, Cantabria, Catalonia, Galicia, Navarra
Sweden	Gotland, Jämtland
United Kingdom of Great Britain and Northern Ireland	Scotland, Wales

AFRICA	STATES AND REGIONS
Burkina Faso	Centre Nord
France (overseas territory)	La Réunion
Morocco	Chefchaouen
Nigeria	Cross River State
Senegal	Gossas, Saint Louis
South Africa	KwaZulu-Natal, Limpopo, Western Cape

ASIA	STATES AND REGIONS
India	Chhattisgarh, Gujarat, Jammu and Kashmir, West Bengal
Indonesia	North Kalimantan, Papua, West Kalimantan
Republic of Korea	Chungcheongnam-Do
Sri Lanka	Western Province

NORTH AMERICA	STATES AND REGIONS
Canada	Alberta, British Columbia, Newfoundland and Labrador, Northwest Territories, Prince Edward Island, Québec
United States of America	California, Connecticut, Hawaii, Minnesota, New York State, Oregon, Washington

LATIN AMERICA	STATES AND REGIONS
Argentina	Misiones, Santa Fe, Tucumán
Brazil	Acre, Amapa, Amazonas, Mato Grosso, Pernambuco, Rio de Janeiro State, Rio Grande do Sul, Santa Catarina, São Paulo State, Tocantins
Colombia	Metropolitan Area of Aburrá Valley, Nariño
Ecuador	Santa Elena
Mexico	Baja California, Campeche, Colima, Estado de Mexico, Guanajuato, Jalisco, Nuevo León, Oaxaca Querétaro, Quintana Roo, Sonora, Tabasco, Yucatán
Peru	Amazonas, Huánuco, Loreto, Madre de Dios, Piura, San Martín, Ucayali
Uruguay	Rivera

OCEANIA	STATES AND REGIONS
Australia	Australian Capital Territory, New South Wales, Queensland, South Australia, Victoria
France (overseas territory)	New Caledonia
New Zealand	Greater Wellington Regional Council

ABOUT THE ANNUAL DISCLOSURE

The Climate Group and CDP are united in their firm belief on the vital role that state and regional governments play in driving climate action and delivering sustainable economies that avoid the dangerous impacts of climate change and lead to a net-zero emissions world.

The Annual Disclosure provides a transparent, global picture of the impact, progress and opportunities of climate action driven by state and regional governments around the world.

For five years, data from the Annual Disclosure has provided an insight into the progress towards reducing global emissions. The process supports states and regions to demonstrate the success of their climate action to the climate community and their national governments.

The Climate Group and CDP would like to thank all disclosing governments for their commitment to reporting in the Annual Disclosure. The analysis and interpretation of the reported data was carried out by The Climate Group and CDP.

START DISCLOSING IN 2020

By choosing to disclose annually, governments benefit from:

- Being showcased in the Global States and Regions Annual Disclosure report
- Featuring on the UNFCCC Global Climate Action Portal: **https://climateaction.unfccc.int/**
- Ensuring climate commitments are backed by reliable, publicly available data through: **https://data.cdp.net**
- Benchmarking climate action against other disclosing governments using the CDP Sub-National Climate Analytics Navigator tool
- Receiving climate-related insights and best practices to support decision-making processes
- Accessing tailored webinars, case studies and policy groups through involvement in The Climate Group's programmatic work with the Under2 Coalition

To explore the data and methodology behind the analysis please see the Annual Disclosure 2019 Annex at: **www.theclimategroup.org/Annual-Disclosure**

Contact The Climate Group and CDP to start disclosing in 2020: **hquintana@theclimategroup.org** **karl.arpon@cdp.net**

PARTNERS

THE CLIMATE GROUP

www.TheClimateGroup.org/Annual-Disclosure
info@TheClimateGroup.org

CDP
DISCLOSURE INSIGHT ACTION

www.cdp.net/en/cities/states-and-regions
statesandregions@CDP.net

ACKNOWLEDGEMENTS

Authors:
Henry Quintana, Roisín Gorman (The Climate Group)

Data Analysts:
Henry Quintana, Roisín Gorman, Milimer Morgado (The Climate Group)
Karl Arpon, Chris Dixon O'Mara (CDP)

Editor:
Emma Fisher (The Climate Group)

Design:
Alchemy Mill

Project Manager:
Henry Quintana (The Climate Group)

Supported by:

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

based on a decision of the German Bundestag

The Forest section of the report is supported by CDP's 2019 States and Regions questionnaire's forest thematic module which is funded by the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag.