DEEP DECARBONIZATION PATHWAYS

# CLIMATE AMBITION BEYOND EMISSION NUMBERS

## Taking stock of progress by looking inside countries and sectors

# UNITED STATES

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## Disclaimer

The results presented in this report are outputs of the academic research conducted under the DDP BIICS project as per the contractual agreement. The academic work does not in any way represent our considered opinion for climate negotiations and also does not reflect the official policy or position of the Government of the United States.

# How is this document relevant to the Global Stocktake?

This document is part of a collective report that assesses the evolution of climate ambition in 26 countries and 3 hard-to-abate sectors through a granular and context-specific analysis of trends and progress of national and sectoral transformations.[1] This approach allows identifying what hinders and spurs action in countries and sectors, and understanding the conditions that can support enhanced ambition, which could be political, social, economic, governance.

These insights are directly relevant to four overarching functions of the Global Stocktake in support of its desired outcome, i.e. "to inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the provisions of the Paris Agreement, as well as enhancing international cooperation for climate action" (Article 14.3 of the Paris Agreement):

- Create the conditions for an open and constructive conversation on global cooperation (on e.g., technology, trade, finance, etc.), based on an in-depth understanding of the international enablers of enhanced country ambition.
- Organize a process for knowledge sharing and collective learning, based on concrete examples of actions already in place or being discussed, including best practices.
- Create space for open dialogues across different stakeholders to support better coordination of actions, based on a detailed understanding of the levers to be activated to enhance ambition in national and sectoral transitions
- Facilitate ownership by decision-makers of the climate challenge and the risks and opportunities of the low-emission and resilient transition, based on context-specific and granular analysis of barriers and enablers.

More specifically, the collective report in general – and this document in particular – can contribute to address some of the key guiding questions for the Global Stocktake[2], notably:

- What actions have been taken to increase the ability to adapt to the adverse impacts of climate change and foster the climate resilience of people, livelihoods, and ecosystem? To what extent have national adaptation plans and related efforts contributed to these actions (Decision 19/CMA.1, paragraph 36(c))?
- How adequate and effective are current adaptation efforts and support provided for adaptation (Article 7.14 (c) Paris Agreement)?

1 The full report « Climate ambition beyond emission numbers - Taking stock of progress by looking inside countries and sectors" can be found at: https://www.iddri.org/en/publications-and-events/report/climate-ambition-beyond-emission-numbers-taking-stock-progress

2 Draft Guiding Questions for the Technical Assessment of GST1 (version 20th October 2021), available at: https://unfccc.int/sites/default/files/resource/Draft%20GST1_TA%20Guiding%20Questions.pdf

- What are the barriers and challenges, including finance, technology development and transfer and capacity-building gaps, faced by developing countries?
- What is the collective progress made towards achieving the long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions referred in Article 10.1 of the Paris Agreement? What is the state of cooperative action on technology development and transfer?
- What progress been made on enhancing the capacity of developing country Parties to implement the Paris Agreement (Article 11.3 Paris Agreement)?
- To achieve the purpose and long-term goals of the Paris Agreement (mitigation, adaptation, and finance flows and means of implementation, as well as loss and damage, response measures), in the light of equity and the best available science, taking into account the contextual matters in the preambular paragraphs of the Paris Agreement:
  - What are the good practices, barriers and challenges for enhanced action?
  - What is needed to make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development?
  - What are the needs of developing countries related to the ambitious implementation of the Paris Agreement?
- What is needed to enhance national level action and support, as well as to enhance international cooperation for climate action, including in the short term?
- What is the collective progress made by non-Party stakeholders, including indigenous peoples and local communities, to achieve the purpose and long-term goals of the Paris Agreement, and what are the impacts, good practices, potential opportunities, barriers and challenges (Decision 19/CMA.1, paras 36(g) and 37(i))?

# Foreword

Henri Waisman, Marta Torres Gunfaus, Anna Perez Catala, IDDRI.

Country commitments as reflected in enhanced Nationally Determined Contributions submitted to the UNFCCC are insufficient to put the world on track to achieve the collective objective of the Paris Agreement to hold temperature increase below 2 °C or 1.5 °C above pre-industrial levels. Furthermore, concrete policies and actions adopted by countries on the ground are often not sufficient to achieve these NDC targets. These conclusions highlight the need to increase ambition and to provide convincing evidence to accelerate action in the immediate and short term to give effect to this ambition. Yet these assessments are not sufficient to effectively guide the progressive increase of ambition, as organized by the cyclical process of the Paris Agreement.

## APPROACH

With this imperative in mind, this report adopts a different, complementary, perspective on climate ambition. It seeks to open the box of emission pathways, by considering multiple dimensions of the conditions that will make these pathways possible. These are technical, economic, political, social and governance considerations in need of attention to enable the required far-reaching and systemic transformation towards the long-term goal. On the one hand, the revision of emission targets needs to be directed by an assessment of how drivers of emissions should change to trigger transformation. On the other hand, converting emissions' targets into pertinent concrete implementation requires well-designed policy packages and investment plans that are also informed by a clear and detailed understanding of the starting point, priorities and interplays between the available levers of transformation.

This bottom-up assessment aims at contributing to the process of collective learning in support of the progressive increase of collective ambition, as inserted at the core of the Paris Agreement paradigm. Approaching climate ambition through the lens of underlying transformations calls for reflecting the heterogeneous nature and the multi-faceted aspects of transitions in different sectors and countries. This forces a move away from a purely global perspective and adopts a more granular approach based on country and individual sector perspectives. Thus, the report explores trends and progress on these transformations, as locally observed over the past years, notably since the Paris Agreement. This 'backwards looking' approach can help identify where developments are going in the right direction, where they should be accelerated and where major tensions remain that should be addressed as a priority to avoid undermining the transition. The picture of the state of the ambition discussion, firmly embedded in the country and sectoral realities, can provide means for reflection and action within the international climate community, particularly to inform focus areas for advancing the collective ambition agenda.

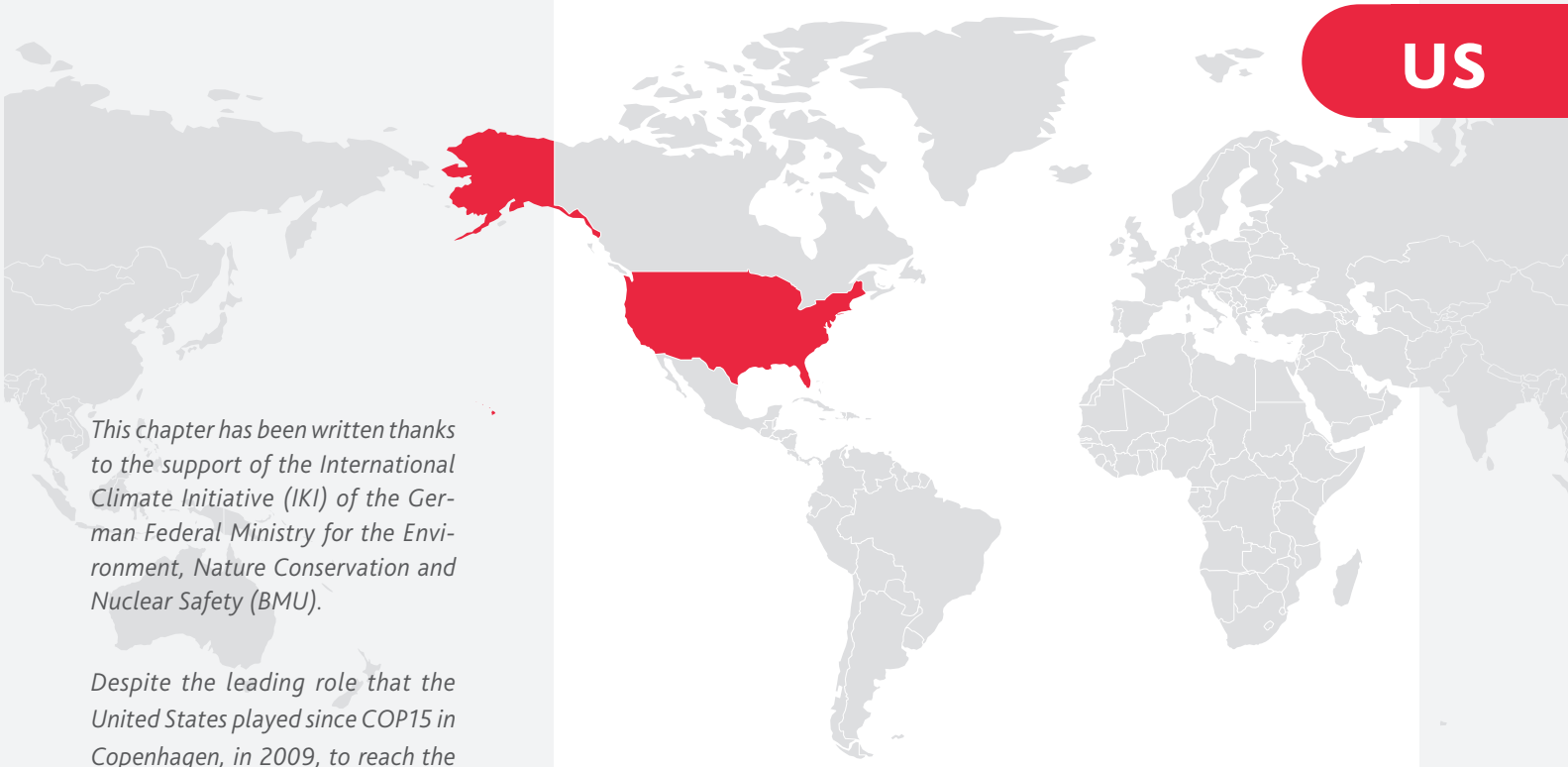
## STRUCTURE OF THE REPORT

This country report describes the recent evolutions of domestic discourses on climate ambition, national climate policy, national governance and concrete policies and actions with a significant effect on GHG emissions. The chapter highlights a selection of striking and structurally important elements to advance the transformation towards carbon neutrality from an in-country perspective.

This report is part of a full series of 26 country chapters and three sectoral chapters. The full report includes a "summary for decision-makers" to present 10 cross-cutting messages emerging from the country and sector analysis, as a guide to the selection of priorities for collective action in the post-COP26 period.

You will find the full report at: https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20Iddri/Rapport/DDP_beyond%20emissions%20report.pdf

US



*This chapter has been written thanks to the support of the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).*

*Despite the leading role that the United States played since COP15 in Copenhagen, in 2009, to reach the first universal climate agreement in 2015 in Paris, it significantly retreated from climate multilateralism over the past four years.* **Political ideology at the federal level and a split Congress left the US isolated internationally,** *unable to deliver on its commitments domestically, nor to diplomatically help enhance ambition from other countries. The chilling effect was limited somewhat by the drive and determination of non-governmental stakeholders - companies, cities, States and the rest of civil society - who picked up the ball and compensated for US federal inaction.* **Recent political changes in the White House and in Congress since the Presidential Election in 2020 have reinstated climate action as a top-priority for the government, more than ever before.** *What remains to be seen is how much can actually be done over the coming years to decarbonize the US economy and reduce global emissions, and how long-lasting this new path can be.*

# COUNTRY PERSPECTIVES

## CHANGE IN DOMESTIC DISCOURSE

To describe how the US domestic discourse on climate action is changing we will take a brief look at polling numbers, the evolving narrative among political parties and influential institutions before a look at broader political dynamics. A detailed poll from March 2021 provides a window into public support for international climate action. It shows how a majority of all registered voters believe global warming should be a high or very high priority for the president and congress (52%) and that developing clean energy is a top priority (60%). This is true across the political spectrum where Democrats and Republicans are in favor of policies such as tax breaks for renewable energy and electric vehicles or funding research. Opinions start to diverge when asked about regulating carbon dioxide, transitioning the US economy from fossil fuels to clean electricity, or setting limits or prices on carbon pollution. The perception on how much priority should be given to this issue compared to other policy agendas is also split. Democrats are in favor of these measures, but there is a schism between moderate Republicans and conservative Republicans with a strong decline in support amongst the latter. Despite general growing awareness and support for climate action, the gap between Democrat and Republican attitudes continues to widen; for example, 57% of Democrats believe scientists understand climate change "very well," compared to only 14% of Republicans (Pew Research Center).

It is well documented how politically polarized the US has become. These trends manifest themselves in politics, in everyday life and with respect to climate ambition. One impediment to building a consensus on climate action is the role of primaries which disproportionately favor voters at the extreme creating incentives for embrace of certain policy positions, despite majority support for progressive action. The extreme becomes mainstream and climate action has fallen victim to this phenomenon. People think it is angry vulnerable people leading the charge, but politicians frame the issues for voters, so it works both ways. **The fever shows no sign of breaking in the short term and climate remains a dividing line.**

However, there is a generational divide to be aware of that might propel political entrepreneurs to start calling for greater climate action. Younger Americans from both parties, but especially Republicans, are more likely to express interest in addressing climate change and reducing reliance on fossil fuels (Pew Research Center). America has shifted towards alarm over the last five years, with 'alarmed people' outnumbering 'dismissive people' three to one (26% to 8%) (Global Warming's Six Americas, YPCCC). **Currently, one in four Americans are alarmed about climate change and are demanding their government take more ambitious action.**

While the numbers are gradually trending in the right direction, the narrative has done a full 180°. '*Climate action is a job killer*' said Trump when pulling out of the Paris Agreement in 2017; it's now a job-creator according to the Biden Administration. Gina McCarthy, the National Climate Advisor, is unabashed about climate change being "a kitchen-table issue if you just talk about it from the standpoint of what kind of jobs are we going to create" (Washington Post). This shift in public discourse is indicative of the administration's larger foreign policy and approach to multilateralism which is above all worker-focused. Delivering for Middle Class America is their political strategy and modus operandi. It is through this prism that US climate action and ambition should be seen. Hence the *America's Job Plan*. And reluctance to talk about the end of coal domestically, preferring a 100% clean electricity target instead.

The shift in center of gravity is evident across other national institutions. The media is doing a lot more on climate, covering the issue across 11 languages 38% more in 2020 than in 2016 when the Paris agreement entered into force, despite COVID-19 (MeCCO). Business groups, too: Nearly 600 companies have signed the Business Ambition for 1.5°C commitment and produced science-based targets aligning with the 1.5°C goal (SBT). The US Chamber of Commerce – the largest lobbying group in the US – has shifted its stance calling on policymakers to rise to the challenge of climate change saying '*inaction is not an option*'. Three of the six big US banks joined the Net Zero Banking Alliance — Morgan Stanley, Citi, and Bank of America. JPMorgan Chase, Wells Fargo, and Goldman Sachs did not. These six banks alone accounted for 31% of the fossil financing from the top banks in the world since the Paris Climate Agreement was adopted. **While a welcome step, Wall Street isn't going to confront the climate crisis left to its own devices and we need action and policy to make all these reforms stick.**

## EVOLUTION OF DOMESTIC GOVERNANCE

US climate policy has in the past been the first victim of changes in political majority. This "stop and go" movement has damaged the credibility and efficacy of the United States government's response to the climate crisis. The issue is still politically divisive and the Congress, which the President needs to legislate, is split.

To further anchor climate into policymaking at the federal level, **the incoming Administration decided to adopt a "whole-of-government" approach, which makes climate a central pillar of government and a core policy priority.** This has meant it is woven into Covid recovery packages (even if it is not branded as such) and considered a top tier foreign policy issue. To mobilize the full apparatus of the Federal government machine in support of climate action in an era of high political volatility is contingent upon the tenacity and creativity of key personnel appointed to strategic positions, and new mandates given to specific offices and bodies. So far the Biden administration has made good on the 'Personnel is Policy' adage and **appointed an impressive array of individuals with broad and deep climate expertise** across government agencies and departments.

The President started *greening* the White House by creating two cabinet level positions - supported by strong and expert staff - leading the charge on climate,

one for international issues led by former Secretary of State John Kerry, the other for domestic policy, headed by former EPA Administrator Gina McCarthy. He followed suit with every agency of the US Government, which is led by a climate champion, from intelligence (Avril Haines) to trade (Ambassador Tai), from the National Security Council (Jake Sullivan) to the National Economic Council (Brian Deese), from Treasury (Janet Yellen) to Defense (Lloyd Austin) to Biden's own chief of staff (Ron Klain). To tie this together and ensure policy coherence, an intra-governmental climate task force was established: a first in the US, it brings the heads of 21 federal agencies together, meets monthly and makes its work transparent to the public.

There are still a few gaps to fill but there has been a decisive shift away from keeping all options open to using every tool and lever available to shift the economy away from fossil fuels and get to net zero emissions by mid-century. Choosing this transversal approach is a way for the Biden Administration to hardwire its climate ambition into the structures and processes of the Federal government, and through US board membership in international organizations. **The hope is that this strategy will make it more difficult for the US to slide backwards in the future, even if there were a change in political rule.** It is a smart strategy that allies should aid and abet.

At the State level there has also been substantial movement. Trump's decision to leave the Paris Agreement prompted a coordinated effort by States to form the US Climate Alliance (USCA). A bi-partisan effort, the USCA has helped states work together in strengthening their climate policies and has contributed to reinforce state governance of climate action. Today, among its 25 members, almost 40% have adopted net-zero targets before 2050, that are anchored in state legislation. **Change in local climate governance has also helped to bring along the private sector and civil society, and render long-term goals more credible and durable.**

## IMPLEMENTATION: DELIVERING THROUGH ACTIONS AND POLICIES

Besides the immediate and symbolic move to rejoin the Paris agreement and the rest of the international community on day one, the new administration has spared no effort to quickly be seen as a climate leader once again. By convening virtually dozens of world leaders at the first ever Summit on Climate Change at the Head of States level, the US hoped to affirm its intent to take a leadership role in galvanizing climate commitments around the world. That being said, before asking anything from its partners, the US needed to demonstrate it could step up its ambition. Hence, at the Summit, Joe Biden presented the new US contribution (NDC), aiming to achieve a 50% to 52% reduction in greenhouse gases emissions by 2030 (compared to 2005 levels). A big success for US NGOs who had been calling for such a target, **on par with efforts of ambitious partners like the EU, it also demonstrates the determination of the Administration**.

The same day, a newly designed climate finance plan was unveiled, pledging to spend $5.7bn of public dollars per year by 2024. The announcement failed to receive praise as the numbers are only a fraction of what was expected and needed, far from what would be necessary to catch up with leading european nations such as Germany, France or the United Kingdom who will have quadrupled their commitment in 10 years (2015-2025), a period over which the US will have only doubled theirs. The World Resources Institute estimates that the US pledge for 2024 is less than a quarter of the funds already provided by the European Union and its member states in 2019 ($24.5bn) although their combined economic weight is only three quarters of the US. **Thus, the climate finance plan highlighted a discrepancy between US climate ambition at home - focused on climate justice for those discriminately impacted and a just transition of the workforce - and international equity and solidarity.**

The gap between domestic determination and international climate finance ambition was reinforced by President Biden's plan to invest in jobs and infrastructure. Early on,the Biden administration presented three plans to stabilize, stimulate and structurally reform the US economy: the American Recovery Plan, Jobs Plan and Family Plan were proposals that had big numbers attached when they reached Congress, including enormous sums of money to invest in the low-carbon transition over the next eight years, as a way to tackle America's economic malaise, ensure innovation, growth and jobs and as a vehicle to de-

liver on its NDC. After months of political wrangling on the Hill, the US Senate in August passed in an uncommonly bipartisan 69:30 vote the $1.2 trillion Infrastructure Investment and Jobs Act. $550 billion of this is new money and includes investment mostly in traditional infrastructure such as rail, roads and bridges but also sizable investments in clean energy transmission, EV infrastructure and the electrification of thousands of the iconic yellow school buses across the country. While the bipartisan infrastructure bill is a win, it represents a fraction of the total sum the administration had initially proposed when linking economic recovery to the fight against climate change. The Biden administration has been pursuing a complicated dual-pronged strategy: with one part of their agenda to be enacted in a bipartisan manner and another in a sprawling spending package - currently $3.5 trillion - through the budget reconciliation process requiring only a simple majority with exclusively Democrat votes. The precise content of that package is still being negotiated among the moderate and progressive flanks of the Democratic caucus, as is the sequencing of votes and pathway to passage. It is expected to include a clean electricity standard, much more climate-related spending and a wide array of progressive priorities. **Suffice it to say a legislative outcome - or outcomes - is mission-critical for Biden's climate ambition and by extension US climate diplomacy.**

**The US administration has made clear that it intends to use financial regulation as a key lever for climate action.** Treasury Secretary Janet Yellen called climate change "*an existential threat*" and instructed the Financial Stability Oversight Council, a panel of top regulators, to consider future climate risks - the first time FSOC considered climate since Congress established the body in 2010. The group includes the heads of the Federal Reserve and the Securities and Exchange Commission. The SEC is considering new climate disclosure rules for public companies and is expected to release its recommendations ahead of COP. The Fed is intensifying scrutiny of banks' exposure to climate-related risks. Meanwhile, the Biden admin has released its guidelines to restrict US international finance for overseas fossil fuel projects - the "carbon intensive" restrictions - both through the World Bank and other International Finance Institutions as well domestic foreign-investments programs like the International Development Finance Corporation (DFC) and the Export-Import Bank.

Trade is another real economy lever that could be deployed to hasten climate action. Candidate Biden pledged to introduce a carbon border adjustment mechanism but showed no signs of moving forward with this agenda item in near term. Yet in a surprise move a week after the EU published their proposal for a Carbon Border Adjustment Mechanism, Democratic Senators released a proposal for a US carbon border tax, allegedly with support from the White House and US Trade Representative. In parallel, a handful of Republican lawmakers have publicly espoused the idea of a carbon border tariff as a way to counter China and protect US industries. This has politically elevated trade as a tool for climate ambition and makes it a priority to find spaces for open and broad dialogue on how the US can work with like-minded partners to align climate and trade policies, perhaps through Buy Clean and through aligned products and standards for clean products. At the moment, though, *Buy America* and other supply-chain concerns - post-Covid and vis a vis China - seem to be complicating the issue. As in other parts of the world, there is an open conversation about a proactive industrial policy, how to implement the polluter pays principle, and the need to invest in domestic clean energy and low carbon industries to shore up US economic competitiveness.

In the same vein, the US is using all its innovation arsenal in service of Biden's goal of a fully decarbonized power grid by 2035 and a net-zero emissions economy by 2050. The US rejoined platforms like the Clean Energy Ministerial and Mission Innovation, offered to host the ministerial meetings in 2022 and volunteered to lead international collaborations on decarbonizing shipping and developing hydrogen. The DOE's flagship $40-billion loan program will now be targeted on clean energy technologies as will the agency's popular Advanced Research Projects Agency-Energy program. Secretary of Energy Jennifer Granholm alluded to the race to get as many policies and programs implemented as possible to meet the president's goals. She said the Biden administration has only four years guaranteed to work with, "That's less than 1,000 days if you exclude weekends. But we're going to work 24-7."

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Making up for lost time and changing gears in the largest economy in the world is not a simple task. The current

president has nevertheless set the tone, and the expectations against which his actions will be judged, over the course of his four-year term, not the first few months. So far, **his administration has engaged tirelessly on all fronts, including by shifting its own governance, but it is still too early to assess how much it can deliver and how fast it will change the system. It has adopted a pragmatic approach rather than a purist one** with the hope of moving further if some battles are not fought. Current efforts are indeed a good start but much remains to be done since the current plans do not meet the scale or the pace of what science requires to keep temperature rise below 1.5°C.

The DDP is an initiative of the Institute for Sustainable Development and International Relations (IDDRI). It aims to demonstrate how countries can transform their economies by 2050 to achieve global net zero emissions and national development priorities, consistently with the Paris Agreement.. The DDP initiative is a collaboration of leading research teams currently covering 36 countries. It originated as the Deep Decarbonization Pathways Project (DDPP), which analysed the deep decarbonization of energy systems in 16 countries prior to COP21 (deepdecarbonization.org). Analyses are carried out at the national scale, by national research teams. These analyses adopt a long-term time horizon to 2050 to reveal the necessary short-term conditions and actions to reach carbon neutrality in national contexts. They help governments and non-state actors make choices and contribute to in-country expertise and international scientific knowledge. The aim is to help governments and non-state actors make choices that put economies and societies on track to reach a carbon neutral world by the second half of the century. Finally, national research teams openly share their methods, modelling tools, data and the results of their analyses to share knowledge between partners in a very collaborative manner and to facilitate engagement with sectoral experts and decision-makers.
www.ddpinitiative.org

The Institute for Sustainable Development and International Relations (IDDRI) is an independent, not-for-profit policy research institute based in Paris. Its objective is to identify the conditions and propose tools to put sustainable development at the heart of international relations and public and private policies. IDDRI is also a multi-stakeholder dialogue platform and supports stakeholders in global governance debates on the major issues of common interest, such as actions to mitigate climate change, protect biodiversity, strengthen food security, and to manage urbanisation. The institute also participates in work to build development trajectories that are compatible with national priorities and the sustainable development goals.

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