

# Climate Reclaiming our Common Future

Fourth Biennial Lecture on Climate Change by  
Angel Gurría, OECD Secretary-General  
3 July 2019, Geneva





## Climate: Reclaiming our Common Future

As the world gets ready to begin implementing the Paris Agreement on climate next year, countries are looking to ramp up action and develop long-term, low-emissions development strategies. At the same time, carbon dioxide emissions continue to rise and climate change is increasingly impacting on people's lives, disrupting national economies, exacerbating biodiversity loss and transforming ecosystems, including the ocean. The need for urgent, strong, co-operative action based on mutual trust and understanding has never been higher.

In his fourth biennial climate change lecture, OECD Secretary-General Angel Gurría focuses on how countries can overcome the numerous political, economic and social barriers to achieve the rapid reductions in greenhouse gas emissions needed to safeguard our common future. The Secretary-General argues that a shift in perspective is needed to ensure better two-way alignment between climate and wider societal goals.

---

For more information, visit: [oe.cd/climate-lectures](https://oe.cd/climate-lectures)

Engage with us on Twitter:

@OECD\_ENV

#OECDClimateTalk



Angel Gurría, OECD Secretary-General

### Introduction

At the OECD Forum in May this year, I shared the stage with a young Belgian climate activist, Anuna de Wever, one of the driving forces behind Youth for Climate. Anuna rightly took today's leaders to task for their slow and inadequate action on climate: "195 countries signed the Paris Agreement, they promised us to take care of our future, and not one of them is in line with it."<sup>1</sup> Her concern is shared by an increasing number of youngsters around the world, turning into a growing tide of grassroots climate action through movements such as the Fridays For Future, the School Strikes for Climate and Extinction Rebellion.

Our children and youth are angry. And they have every right to feel enraged. After a three year plateau from 2014 to 2016, energy-related carbon dioxide emissions are rising again, reaching unprecedented levels in 2018.<sup>2</sup> The jump from 2017 emissions was equivalent to the amount of total emissions from international aviation last year!<sup>3</sup> Coal, oil and gas continue to meet the lion's share of global primary energy demand growth.<sup>4</sup> Ocean acidification and warming is driving rapid and dramatic changes in marine ecosystems. Moreover, nearly one million species are threatened with extinction driven by our increasing demands for food and energy. We are now on the brink of the planet's sixth major extinction.<sup>5</sup> Our life support systems are at risk of failing.

Our failure to decisively act on climate today mortgages the prospects for our children and grandchildren to benefit from the climatic conditions that have allowed humanity to thrive for the past 10,000 years. Our actions must have a keen eye to the future as the investment and mitigation choices we make today determine what we will bequeath to our descendants. It is our collective future that is at stake. And we have already squandered precious time. Make no mistake, we are already living the consequences of climate disruption. Look at the recent forest fires in Spain and California.<sup>6</sup> Look at major cities facing water crises; remember Cape Town<sup>7</sup> and look at Chennai now.<sup>8</sup> Look at the soaring temperatures that we are already witnessing in many regions, particularly in the Arctic, or in Europe last week.<sup>9</sup>

In such a radical moment, it is instructive to cast our minds back some 30 years when the Brundtland Commission's Report on "Our Common Future" was presented to the UN General Assembly.<sup>10</sup> That landmark report set out a global agenda for change aimed at placing the environment squarely in the centre of political decision making. It recognised the fact that human well-being is the ultimate goal of both environment and development policies. A generation later, even with the progress made in the form of the Paris Agreement and Agenda 2030, this call for a spirit of collective responsibility resonates more than ever.

### Progress is possible, but the political challenges are real

Progress is possible. In the six years since I gave my first climate lecture in 2013, we have seen encouraging action taken by some OECD and partner countries to combat climate change. The **United Kingdom** just achieved a record 14 days without coal-fired power – the longest stretch since the Industrial Revolution<sup>11</sup> – and is legislating to end its net contribution to climate change by 2050.<sup>12</sup> **Costa Rica** is on track to become the world's first carbon-neutral nation.<sup>13</sup> **New Zealand** has banned new permits for offshore oil and gas exploration.<sup>14</sup> **Norway** is dropping USD 13 billion fossil fuel investments from its

national pension fund, the world's biggest wealth fund, to redirect a total of USD 20 billion towards renewables.<sup>15</sup> The new **Danish** government has pledged to up its 2030 emissions reduction target from 40% to 70% of 1990 emissions levels, and to ban the sale of all new diesel and petrol cars from that year.<sup>16</sup> And a number of cities now use 100% renewable energy: **Burlington (USA)**, **Yakushima (Japan)** and **Dobbiaco (Italy)** to name just three.<sup>17</sup>

We have also witnessed rapid reductions in the cost of key renewable technologies over the past few years. Who could have predicted this a decade ago? Current assumptions about the share of solar in the future energy mix continue to look under-optimistic. The share of solar PV in global power generation has doubled eight times in the past 17 years, compared to five “doublings” for wind power.<sup>18</sup> The dramatic cost reductions in renewable technologies has entirely altered our approach to decarbonising the electricity sector and opened up our eyes and minds to opportunities from new technologies.

These achievements, however, are being thwarted by perilous developments that amount to a slowing down or reversal of climate action. The **United States** is ramping up oil and gas production with fracking,<sup>19</sup> and will soon withdraw from the Paris Agreement. **Canada** is seeking to expand its carbon-intensive oil sands industry.<sup>20</sup> **Australia** just approved the construction of a new coalmine, which could become the world's biggest.<sup>21</sup> **Mexico** has announced plans for the construction of a new coal power plant and a large oil refinery.<sup>22</sup> In **Brazil**, logging in the Amazon rainforest is accelerating at an alarming rate.<sup>23</sup> **China** and **India** continue to drive global growth in coal demand, with coal-fired power generation increasing strongly in both countries in 2018.<sup>24</sup> Despite a significant drop in fossil-fuel subsidies, Indonesia plans to nearly double coal use by 2025.<sup>25</sup> G20 countries “agreed to disagree” on committing to fully implement the Paris Agreement at the Osaka Leaders Summit over the weekend.<sup>26</sup>

We are treading a very fine line. The IPCC Special Report released last year makes it clear that the next decade is decisive if we are to contain warming to 1.5°C or 2°C.<sup>27</sup> Scientific understanding

of thresholds in climate systems is low, which means that we risk unwittingly triggering “tipping points” in the climate system. Just this week, we learnt that temperature changes in the Norwegian town of Longyearbyen are up 4°C since 1971, five times the global average and “far ahead of most computer simulations”.<sup>28</sup>

We have repeatedly called upon governments to put national agendas and short termism aside and honour their climate commitments. In my first climate lecture in 2013, I called for net-zero emissions by the second half of the century.<sup>29</sup> This was taken up in the Paris Agreement and is now considered uncontroversial. In my second climate lecture in 2015, I highlighted the considerable costs to society from coal use, in terms of air pollution and adverse health impacts.<sup>30</sup> In my third lecture, just two years ago, I argued that fragmented, nation-centric responses to climate change are fundamentally inadequate to address *global* climate change, limiting the provision of resources to help the poorest and most vulnerable cope with climate impacts and deepening current patterns of poverty and inequality.<sup>31</sup> Over this time, we have repeatedly urged governments to put a meaningful price on carbon, to phase out state support for fossil fuels, and to stop burning coal.

Yet energy-related carbon dioxide emissions are accelerating at an alarming rate, with the 1.7% hike in emissions in 2018, 70% above the average rate of increases since 2010.<sup>32</sup> Despite 46 national and 28 subnational jurisdictions having now implemented some form of carbon pricing measures,<sup>33</sup> nearly 80% of energy-related carbon emissions in OECD and G20 economies are not yet priced at even a conservative estimate of climate costs.<sup>34</sup> And despite strong progress on renewables, fossil fuels continue to dominate our energy mix.<sup>35</sup> Of course if we continue to give fossil fuels a serious “leg-up” through government subsidies, we help to entrench their market share. The fact that we now have the technologies to avoid a lot of emissions, and that their cost is falling like a stone, makes inaction today doubly unacceptable.

I fully understand the frustration of the public and above all of our youth. The words of Greta Thunberg resound in my mind: “Did you hear

what I just said? Is my English OK? Is the microphone on? Because I'm beginning to wonder."<sup>36</sup> With governments and parliaments dragging their heels, people are demanding change, and people have a vote – or in the case of youth they will have in a few short years! Thunberg's initially solitary "school strike for climate", lamenting the subjugation of youth's future to "profiteers" in "search of quick cash" and the free reign of fossil fuel companies, has sparked a global movement implicating more than 2 million school children across 135 countries.<sup>37</sup> Extinction Rebellion's "civil disobedience movement" fighting for recognition of the seriousness and urgency of climate change has sparked comparisons with the suffragates, evoking the potential of social movements to change the political calculus on major social issues.<sup>38</sup>

Governments now have a much bigger problem on their hands than me delivering a biennial admonishment on the need for urgent action: if they don't act to curb climate change through radical measures that take well-being and inclusion into account, they will be held accountable at the ballot box. The "green wave" that dominated the recent European elections demonstrates not only a rising tide of awareness, but also muscle.

So be it by political conviction or electoral convenience, leaders need to think big and act bigger. We are at the brink of the precipice. As Al Gore recently put it, "our economic system requires a fundamental upgrade to sustainability", on both the environmental and social fronts.<sup>39</sup>

**It is time to reclaim our common future - a future that offers a seat at the table for all nations, all members of our societies, and future generations alike.** A future forged internationally rather than devised deep within national bunkers. As we head towards the UN Secretary General's Climate Action Summit in September and the COP25 in Chile in December, I would like to address how we can do this.

### Towards positive collective action for our common future

At the OECD Forum, the young climate activist, Anuna, asked Governments: "Where's the plan?"

I have an answer for her. We will continue to call on governments to implement core climate policies such as a "big fat" price on carbon and phasing out fossil fuel subsidies. But we need to do more to create political momentum for change. I'd like to propose a set of actions across three fronts:

- Putting people at the centre of climate policy;
- Pursuing environmental justice within and between countries; and
- Ensuring long-term prospects for future generations.

### *Putting people at the centre of climate policy*

Strong climate action is essential to human well-being and equity. But many governments face barriers to effective and ambitious mitigation action because of concerns over their impact on affordability, competitiveness and jobs. We need to put people at the centre of climate action by looking at climate mitigation through a well-being lens. First, by creating policy approaches that generate win-win outcomes for both climate and well-being goals, we can strengthen the case for early action. And second, by alerting policy makers to potential tensions between mitigation and well-being goals, we can allow them to seek better policies and outcomes. The bottom line message is that just as any comprehensive well-being agenda must feature strong climate action as necessary to underpin human quality of life, we need to put people at the centre of climate policy to ensure equitable outcomes across countries, communities, individuals and generations. If you take one big message away, let this be it.

What does taking a well-being approach to climate mitigation mean in practice? Let's take transport as an example. Typically, transport policy seeks to increase physical movement - we predict traffic and provide roads. This entrenches us in a world built around personal cars. We sit in ever-increasing congestion, breathing in pollution, listening to honking horns, reducing productivity, all while releasing carbon dioxide and other pollutants. The costs from a health perspective alone are considerable. The burden of air pollution from road transport in OECD countries and the



BRIICS was around 3.2 million deaths and USD 5.1 trillion in 2015.<sup>40</sup>

If we look at the situation through a well-being lens, we see that the transport sector should not aim at increasing physical movement but at enhancing accessibility, making it easier for everyone to reach “destinations for goods, services, jobs and other activities.”<sup>41</sup> Our future is a transport system that stops harming our health and the planet’s. A future where we don’t sit in our cars, but reallocate road space for all users and activities - walking, cycling, public transport and cars. A future that prioritises space for the most vulnerable users and the most sustainable transport modes.

Many cities are already doing this. **Oslo** removed the remaining 700 parking places in the city centre at the end of last year, prioritising pedestrians, cyclists, and public transport instead.<sup>42</sup> Similar shifts are taking place in **Madrid, Paris, London, Mexico City** and **Athens**, with the aim to reduce emissions, but also improve lives via less time spent in traffic, provide cleaner air, and offer opportunities to everyone, not only car owners.<sup>43</sup>

**New Zealand** is a front-runner in bringing well-being into the forefront of policy making at the broader economy level. It is the first country in the world to set a well-being budget that evaluates policies in terms of well-being, formally moving beyond GDP alone or beyond a myopic set of sector- or issue- specific objectives. Evaluating progress in these terms makes transitioning to a low-carbon economy one of the top priorities for New Zealand.<sup>44</sup>

“The OECD Well-being Framework” has been helping governments go beyond GDP when setting societal goals as part of our core mandate to help governments pursue “better policies for better lives”. The framework provides governments with indicators to measure progress against a broad range of factors that shape the quality of people’s lives – environmental quality, but also political and social rights, health, education, security and so on. We will also release a dedicated report “*Climate Change Mitigation through a Well-being Lens*” ahead of the UN Climate Action Summit in September, to support governments to put people

at the centre of climate policy specifically. Both these tools can help governments deliver wider benefits for both current and future generations and speak to many of the social concerns that are being voiced today.

### *Pursuing environmental and climate justice within and between countries*

The second vital aspect of the action agenda for a common future is pursuing environmental and climate justice, both within and between countries. This is a key aspect of applying a well-being lens to climate policy. The point of commonality between social movements such as Greta Thunberg’s “school strike for climate” and Extinction Rebellion, is the demand for a better and fairer future – one characterised by a shared vision, ambition, a sense of mission and a unified front on climate.

First, climate justice within countries. We can’t have a common future if we leave behind the vulnerable segments of our population, who often stand to be hardest hit by climate change. Governments explicitly acknowledged the importance of promoting a “just transition of the workforce” in the preamble to the Paris Agreement.<sup>45</sup> While structural change and labour reallocation is a feature of our modern economies, the impact of climate policies is expected to be limited when compared to other mega-trends such as globalisation and digitalisation.<sup>46</sup> Involuntary job loss due to factors such as economic downturns or structural change affects around 2-7% of employees every year.<sup>47</sup> By contrast, total job reallocation due to the introduction of a global carbon tax of USD 50/tCO<sub>2</sub> is projected to be at 0.3% for OECD and 0.8% for non-OECD countries<sup>48</sup> as the heavily impacted sectors represent only a small share of total employment. Other studies predict net employment gains from ambitious action on climate.<sup>49</sup>

However, far-reaching mitigation policies can profoundly affect those regions where carbon intensive and extractive industries count for a large share of employment. Locations where “brown” jobs are lost may also not coincide with where “green” ones are created. And post-

displacement jobs often tend to be “worse” along a number of dimensions, such as average earnings.<sup>50</sup> On the positive side, the expansion of green sectors such as the renewable energy industry may have a beneficial impact on gender balance in the traditionally male-dominated energy sector. A survey carried out by IRENA shows that women compose on average 35% of the workforce in renewables as opposed to 20-25% in the “traditional” energy sector.<sup>51</sup>

In thinking through how to deal with this challenge, we should remember that we are not starting with a blank page. Governments have experience dealing with structural change, and should apply these lessons to the climate sphere. Reforms to housing policies can facilitate geographic mobility of workers, thus increasing the quality and availability of post-displacement jobs. Active labour market policies, such as job-search training or entrepreneurial training, will play an important role in facilitating workers’ reallocation. Skills policies can support displaced workers to expand their skill-set with new competencies and move on to jobs in different sectors.<sup>52</sup> **Germany** plans to phase out all coal power plants by 2038 and is already drawing on past experience to plan for worker retraining or early retirement schemes to ensure no one is left behind.<sup>53</sup> It created a Commission on Growth, Structural Change and Employment last year that will guide these regions through the transition<sup>54</sup> and has engaged several stakeholder groups too.

An additional challenge is to ensure that the poor or the socially fragile do not shoulder a disproportionately large burden from reform. In addition to strengthening the social safety net, targeted compensation schemes can mitigate and fully compensate many direct negative distributional outcomes and generate progressive outcomes overall.<sup>55</sup> Revenue recycling – the way in which carbon pricing revenues are used – is key.<sup>56</sup> There is considerable scope for governments to step up in this area. The OECD estimates that revenues from carbon pricing are at present equal to one percentage point of GDP in many OECD and G20 countries. They could more than double if carbon prices increased to even EUR 30/tCO<sub>2</sub> – a low-end estimate of carbon costs.<sup>57</sup> More ambitious levels of carbon pricing imply greater

revenue potential. And there is much larger potential in more carbon-intensive economies. These funds could be leveraged in part to ease the impact of the transition on households and workers.

We know that introducing and maintaining carbon pricing can require a difficult juggling act between political feasibility and public support, and effective environmental and tax policy making. Sometimes the political concession that we make for this industry here, or free allowances that we afford to those companies there, can seriously erode the effectiveness of the underlying environmental policy. Beyond careful design and communication of policy packages and adopting a well-being lens to help identify and address any well-being implications, another concrete way governments might ease the passage of carbon pricing is to treat it as a general tax and fiscal framework matter, rather than an isolated environmental tax policy measure. After all, ambitious carbon pricing will raise substantial amounts of revenue. Treating carbon pricing as a “mainstream” tax policy, with few constraints on revenue use, would help cleave support for carbon pricing from the social impacts of carbon pricing and carbon revenue itself, to depend on performance of the overall system.<sup>58</sup>

Second, climate justice between countries. In the context of the global and cumulative problem that is climate change, ensuring an inclusive approach to climate action also means moving beyond national borders. Many emerging and developing countries will require support to facilitate higher levels of climate mitigation and adaptation. How governments support the world’s poorest in dealing with climate change is a question of major global political significance, and will prove vital for international climate action. Because the impacts of climate change will not be uniform across regions, the changes faced by many developing countries will be worse than those implied by temperature increases at the global level. Many regions are already at 1.5°C levels of warming or more!<sup>59</sup> At the same time, emissions per capita in many developing countries are a bare fraction of those of OECD countries, often at levels as low as 1%.<sup>60</sup>

Climate finance commitments by developed countries represent a vital aspect of international solidarity. The OECD's most recent estimates show that public climate finance from developed to developing countries increased by 44% from 2013 to 2017 (USD 37.9 billion to USD 54.5 billion), in line with the trajectory published by the OECD in 2016.<sup>61</sup> Private finance is also an important element for achieving the USD 100 billion goal and we will release a new set of figures on private finance mobilised by developed countries for climate action in developing countries later in the year. We are also working with governments to help drive private investment to low-emission infrastructure.

Greater understanding of the relationship between climate finance and broader development assistance is needed to address concerns about the risks of diversion of funding to other priorities. Governments will be discussing a future climate finance goal from next year. Ensuring that development co-operation is well-aligned with the objectives of the Paris Agreement will thus be essential. A first step is to ensure that all development co-operation activities are consistent with international climate goals, rather than simply a limited "climate action and finance" subset. Mainstreaming efforts will need to move beyond a focus on infrastructure financing, which has dominated the debate so far.<sup>62</sup>

Technological support, for example, will be vital to spur developing countries increase the pace and scale of their action.<sup>63</sup> Beyond development co-operation, international technology transfer mechanisms have an important role to play in ensuring that innovation benefits a larger number of countries. To date, international transfers of low-emission technologies have been primarily between advanced countries, but the proportion of transfers to emerging economies has increased significantly since 1992. In 2016, emerging economies accounted for 29% of the global imports of low-emission equipment goods and 24% of global exports.<sup>64</sup>

While emerging economies are better integrated into international technology markets, less developed countries remain largely excluded

due to their general isolation and lack of absorptive capacity. International technology transfer mechanisms – such as the UNFCCC's Technology Mechanism, the South-South Knowledge Exchange under The Energy and Resources Institute, IEA's Collaborative Technology Agreements and the new Technology Facilitation Mechanism established under the 2030 Agenda – have an important role to play in ensuring that innovation benefits a larger number of countries.<sup>65</sup>

### *Ensuring the long-term prospects for future generations*

Let me conclude with the third track of our plan: a set of specific actions that governments can take to help address the tragedy of the horizon and ensure today's policy making serves the interests of tomorrow's generations as well as the present day's. Remember the famous proverb: "We do not inherit the earth from our ancestors, we borrow it from our children". Indeed, our policies have to be made with our children's future in mind.

Therefore, an effective response to climate change will require transformative action in the way we plan ahead and the way we budget. If used strategically, planning and budgeting can be central to fighting the climate battle today and for generations to come. This was one of the key messages from last year's OECD *Financing Climate Futures* report, prepared in partnership with the World Bank Group and UN Environment.<sup>66</sup>

First, strategic planning. We know that short-term decision-making can lock countries into expensive mistakes in financing and developing infrastructure: think of the coal plants that are being built today, that will be neither necessary nor profitable in a low-emission world, they will be stranded assets. To overcome this, governments should develop long-term, low-emission development strategies. I congratulate the 12 countries that have already submitted such a strategy to the UNFCCC, with Japan the latest to submit last week.<sup>67</sup>

But developing these long-term strategies is not enough: the decisions we make today must also be consistent with these long-term plans, and build



capacity to adapt to what the world might look like under various temperature scenarios. This includes stress-testing decisions in institutions, businesses, and governments against the 1.5-2°C degrees pathways, including through greater transparency on climate risks; ratcheting up the ambition-level of Nationally Determined Contributions; aligning these decisions with financial planning; and making resilient infrastructure the norm rather than the exception. Doing this will help to ensure that countries take the right steps today to ensure our common future.

Second, we must ensure fiscally sustainable budgeting.<sup>68</sup> The cost of addressing the climate challenge today may seem significant, but it is small in comparison to the financial and societal costs for future generations if left unaddressed. Governments should plan for future generations by leaving a sustainable fiscal and economic legacy. They can do so by aligning their budgetary policies – the way they raise and spend money – with their climate goals. Today, too many governments are hooked on fossil fuels – on average, rents extracted from oil, natural gas, and coal resources account for over 8% of total government revenue! What happens to future generations when this source of fiscal revenue can no longer be tapped? The way governments spend money is also critical: yet, our latest report on fossil fuel subsidies, released just last month, showed that support for fossil fuels increased by 5% from 2016 levels to 340 USD billion in 2017!<sup>69</sup> It's little wonder the oil majors continue the ruthless pursuit of new oil and to predicate business models on fossil fuels “with crumbs on renewables”.<sup>70</sup> Initiatives such as the Paris Collaborative on Green Budgeting<sup>71</sup> and the Coalition of Finance Ministers on Climate Action<sup>72</sup> represent positive steps towards better alignment of national budgetary processes with climate goals, but governments must do better.

The recent youth protests demonstrate that the young are increasingly demanding a voice on climate, one with potential to move the political needle and give greater priority to future generations in decisions affecting them. Governments can help. For example, they can

appoint a guardian such as an ombudsman to represent future generations' interests in present-day administrative and judicial decisions to help ensure their voice is considered. Wales is the first region with a future generations commissioner with statutory powers!<sup>73</sup>

Ladies and Gentlemen,

Some people say it is already too late, they think that power is deeply entrenched, that fossil fuel owners will not bend their game and our economic system will never change. I yearn to prove them wrong.

The OECD is ready to join the world's youth and all those fighting to save our planet. For this radical transformation demands a profound systemic change and we are all part of this system.

In the words of the American writer Kim Stanley Robinson: “the fight to stay alive rather than join the undead, there in the exposed, bloody heart of all our zombie narratives, is also a story of group solidarity in a life-threatening situation. That stubborn hope, that we might come together under duress, is what motivates the decisions we make about how to lead our private lives, and all the political resistance we can band together and make.”

I share this stubborn hope. I very much hope that the agenda of putting people at the centre of climate action can help governments take the necessary steps to reclaim our common future.

The OECD is here to help! Let's not give up! Count on the OECD!

Thank you.

## Notes

---

- 1 <https://oecd.streamakaci.com/052019/>
- 2 IEA (2019), *Global Energy and CO<sub>2</sub> status report*, IEA Publishing, Paris.
- 3 IEA (2019), *Global Energy and CO<sub>2</sub> status report*, IEA Publishing, Paris.
- 4 IEA (2019), *Global Energy and CO<sub>2</sub> status report*, IEA Publishing, Paris.
- 5 IPBES (2019). *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science- Policy Platform on Biodiversity and Ecosystem Services*. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES Secretariat, Bonn.
- 6 [www.theguardian.com/world/2019/jun/27/hundreds-of-firefighters-tackle-blaze-in-north-east-spain](http://www.theguardian.com/world/2019/jun/27/hundreds-of-firefighters-tackle-blaze-in-north-east-spain); <https://heavy.com/news/2019/06/california-fire-map-near-me-2/>
- 7 [www.citylab.com/environment/2019/04/cape-town-water-conservation-south-africa-drought/587011/](http://www.citylab.com/environment/2019/04/cape-town-water-conservation-south-africa-drought/587011/)
- 8 [www.abc.net.au/news/2019-06-22/chennai-telling-the-globe-a-story-about-water-scarcity/11229084](http://www.abc.net.au/news/2019-06-22/chennai-telling-the-globe-a-story-about-water-scarcity/11229084)
- 9 [www.nytimes.com/2019/06/17/climate/greenland-ice-sheet-melting.html](http://www.nytimes.com/2019/06/17/climate/greenland-ice-sheet-melting.html); <https://edition.cnn.com/2019/06/29/europe/climate-change-heatwaves-cities-intl/index.html>
- 10 [www.un-documents.net/wced-ocf.htm](http://www.un-documents.net/wced-ocf.htm)
- 11 [www.bbc.co.uk/news/business-48473259](http://www.bbc.co.uk/news/business-48473259)
- 12 [www.gov.uk/government/news/pm-theresa-may-we-will-end-uk-contribution-to-climate-change-by-2050](http://www.gov.uk/government/news/pm-theresa-may-we-will-end-uk-contribution-to-climate-change-by-2050)
- 13 [www.vox.com/energy-and-environment/2018/7/17/17568190/costa-rica-renewable-energy-fossil-fuels-transportation](http://www.vox.com/energy-and-environment/2018/7/17/17568190/costa-rica-renewable-energy-fossil-fuels-transportation)
- 14 [www.theguardian.com/world/2018/apr/12/new-zealand-bans-all-new-offshore-oil-exploration-as-part-of-carbon-neutral-future](http://www.theguardian.com/world/2018/apr/12/new-zealand-bans-all-new-offshore-oil-exploration-as-part-of-carbon-neutral-future)
- 15 [www.wsj.com/articles/norways-sovereign-wealth-fund-boosts-renewable-energy-divests-fossil-fuels-11560357485](http://www.wsj.com/articles/norways-sovereign-wealth-fund-boosts-renewable-energy-divests-fossil-fuels-11560357485)
- 16 [www.altinget.dk/misc/Retf%C3%A6rdig%20retning%20for%20Danmark\\_2019-06-25\\_ENDELIG.pdf](http://www.altinget.dk/misc/Retf%C3%A6rdig%20retning%20for%20Danmark_2019-06-25_ENDELIG.pdf)
- 17 [www.sierraclub.org/ready-for-100/commitments](http://www.sierraclub.org/ready-for-100/commitments)
- 18 See the discussion in Liebreich (2018), [www.linkedin.com/pulse/scenarios-solar-singularity-michael-liebreich/](https://www.linkedin.com/pulse/scenarios-solar-singularity-michael-liebreich/)
- 19 <https://time.com/5187074/fracking-energy-oil-n>
- 20 [www.nationalgeographic.com/environment/2019/04/alberta-canadas-tar-sands-is-growing-but-indigenous-people-fight-back/](http://www.nationalgeographic.com/environment/2019/04/alberta-canadas-tar-sands-is-growing-but-indigenous-people-fight-back/)
- 21 [www.economist.com/asia/2019/06/29/adanis-giant-australian-coal-mine-gets-the-go-ahead](http://www.economist.com/asia/2019/06/29/adanis-giant-australian-coal-mine-gets-the-go-ahead)
- 22 [www.apnews.com/47256895a3ea4c35985fe8c21e4d6ff9](http://www.apnews.com/47256895a3ea4c35985fe8c21e4d6ff9)
- 23 [www.reuters.com/article/us-brazil-environment-deforestation/satellite-data-shows-amazon-deforestation-rising-under-brazils-bolsonaro-idUSKCN1T52OQ](http://www.reuters.com/article/us-brazil-environment-deforestation/satellite-data-shows-amazon-deforestation-rising-under-brazils-bolsonaro-idUSKCN1T52OQ)
- 24 IEA (2019), *Global Energy and CO<sub>2</sub> status report*, IEA Publishing, Paris.
- 25 OECD (2019), *OECD Green Growth Policy Review of Indonesia 2019*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/1eee39bc-en>.
- 26 <https://uk.reuters.com/article/us-g20-summit-climate/u-s-remains-outlier-as-g20-split-over-tackling-climate-change-idUKKCN1TU0DQ>
- 27 [www.ipcc.ch/sr15/](http://www.ipcc.ch/sr15/)
- 28 [www.theguardian.com/environment/ng-interactive/2019/jul/01/its-getting-warmer-wetter-wilder-the-arctic-town-heating-faster-than-anywhere](http://www.theguardian.com/environment/ng-interactive/2019/jul/01/its-getting-warmer-wetter-wilder-the-arctic-town-heating-faster-than-anywhere)
- 29 [www.oecd.org/env/the-climate-challenge-achieving-zero-emissions.htm](http://www.oecd.org/env/the-climate-challenge-achieving-zero-emissions.htm)
- 30 [www.oecd.org/environment/climate-what-has-changed-what-has-not-and-what-we-can-do-about-it.htm](http://www.oecd.org/environment/climate-what-has-changed-what-has-not-and-what-we-can-do-about-it.htm)
- 31 [www.oecd.org/environment/cc/Climate-Action-time-for-implementation-lecture-by-Secretary-General-2017.pdf](http://www.oecd.org/environment/cc/Climate-Action-time-for-implementation-lecture-by-Secretary-General-2017.pdf)
- 32 IEA (2019), *Global Energy and CO<sub>2</sub> status report*, IEA Publishing, Paris.
- 33 World Bank Group (2019), *State and Trends of Carbon Pricing 2019*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/31755>
- 34 OECD (2018), *Effective Carbon Rates 2018: Pricing Carbon Emissions Through Taxes and Emissions Trading*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264305304-en>.
- 35 IEA (2019), *Global Energy and CO<sub>2</sub> status report*, IEA Publishing, Paris.
- 36 <https://twitter.com/BBCPolitics/status/1120718726712766464>
- 37 [www.fridaysforfuture.org/events/list](http://www.fridaysforfuture.org/events/list)
- 38 [www.theguardian.com/environment/2019/apr/23/labour-extinction-rebellion-climate-change](http://www.theguardian.com/environment/2019/apr/23/labour-extinction-rebellion-climate-change)
- 39 [www.theguardian.com/us-news/2019/jun/25/climate-crisis-al-gore-global-economy-needs-major-upgrade-fast](http://www.theguardian.com/us-news/2019/jun/25/climate-crisis-al-gore-global-economy-needs-major-upgrade-fast)
- 40 Roy, R. and N. Braathen (2017), “The Rising Cost of Ambient Air Pollution thus far in the 21<sup>st</sup> Century: Results from the BRIICS and the OECD Countries”, *OECD Environment Working Papers*, No. 124, OECD Publishing, Paris.
- 41 Litman, T. (2018). “Evaluating Accessibility for Transport Planning Evaluating Accessibility for Transportation Planning”.
- 42 <https://cleantechnica.com/2019/03/05/oslo-is-almost-car-free-and-likes-it-that-way/>
- 43 [www.c40.org/cities](http://www.c40.org/cities)
- 44 [www.weforum.org/agenda/2019/05/new-zealand-is-publishing-its-first-well-being-budget/](http://www.weforum.org/agenda/2019/05/new-zealand-is-publishing-its-first-well-being-budget/)
- 45 See [https://unfccc.int/files/essential\\_background/convention/application/pdf/english\\_paris\\_agreement.pdf](https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf)
- 46 Botta, E (2018), “A review of “Transition Management” strategies: Lessons for advancing the green low-carbon transition”, *OECD Green Growth and Sustainable Development Forum Issue Paper*, [www.oecd.org/greengrowth/GGSD\\_2018\\_IssuePaper\\_Transition\\_Management.pdf](http://www.oecd.org/greengrowth/GGSD_2018_IssuePaper_Transition_Management.pdf)
- 47 OECD (2013), “Back to work: Re-employment, earnings and skill use after job displacement”, in *OECD Employment Outlook 2013*, OECD Publishing, Paris, [https://doi.org/10.1787/empl\\_outlook-2013-8-en](https://doi.org/10.1787/empl_outlook-2013-8-en).
- 48 Chateau, J., R. Bibas and E. Lanzi (2018), “Impacts of Green Growth Policies on Labour Markets and Wage Income Distribution: A

- General Equilibrium Application to Climate and Energy Policies”, OECD Environment Working Papers, No. 137, OECD Publishing, Paris, <https://doi.org/10.1787/ea3696f4-en>
- 49 ILO (2018), *World Employment and Social Outlook 2018 – Greening with jobs*, ILO, Geneva, [www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_615594.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_615594.pdf); NCE (2018), *Unlocking the inclusive growth story of the 21st century: accelerating climate action in urgent times*, New Climate Economy, <https://newclimateeconomy.report/2018/>.
- 50 OECD (2013), “Back to work: Re-employment, earnings and skill use after job displacement”, in *OECD Employment Outlook 2013*, OECD Publishing, Paris, [https://doi.org/10.1787/empl\\_outlook-2013-8-en](https://doi.org/10.1787/empl_outlook-2013-8-en).
- 51 IRENA, (2016), *Renewable Energy and Jobs - Annual Review 2016*, IRENA, Abu Dhabi, in Botta, E (2018), “A review of “Transition Management” strategies: Lessons for advancing the green low-carbon transition”, *Issue Paper prepared for the OECD Green Growth and Sustainable Development Forum 2018*, OECD, Paris, [www.oecd.org/greengrowth/GGSD\\_2018\\_IssuePaper\\_Transition\\_Management.pdf](http://www.oecd.org/greengrowth/GGSD_2018_IssuePaper_Transition_Management.pdf)
- 52 Botta, E (2018), “A review of “Transition Management” strategies: Lessons for advancing the green low-carbon transition”, *Issue Paper prepared for the OECD Green Growth and Sustainable Development Forum 2018*, OECD, Paris, [www.oecd.org/greengrowth/GGSD\\_2018\\_IssuePaper\\_Transition\\_Management.pdf](http://www.oecd.org/greengrowth/GGSD_2018_IssuePaper_Transition_Management.pdf)
- 53 [www.reuters.com/article/us-germany-energy-coal/germany-to-phase-out-coal-by-2038-in-move-away-from-fossil-fuels-idUSKCN1PK04L](http://www.reuters.com/article/us-germany-energy-coal/germany-to-phase-out-coal-by-2038-in-move-away-from-fossil-fuels-idUSKCN1PK04L)
- 54 [www.bmu.de/en/report/kommission-wachstum-strukturwandel-und-beschaeftigung-nimmt-arbeit-auf/](http://www.bmu.de/en/report/kommission-wachstum-strukturwandel-und-beschaeftigung-nimmt-arbeit-auf/)
- 55 Mackie, A. and I. Haščič, “The distributional aspects of environmental quality and environmental policies: Opportunities for individuals and households”, *Issue Paper prepared for the OECD Green Growth and Sustainable Development Forum 2018*, OECD, Paris, [www.oecd.org/greengrowth/GGSD\\_2018\\_Households\\_WEB.pdf](http://www.oecd.org/greengrowth/GGSD_2018_Households_WEB.pdf)
- 56 Heindl, P. and A. Löschel (2014), “Addressing Social Implications of Green Growth: Energy Sector Reform and Its Impact on Households”, *Issue Note prepared for the OECD Green Growth and Sustainable Development Forum 2014* OECD, Paris, [www.oecd.org/greengrowth/Issue%20Note%20Session%20One%20GGSD%20Forum.pdf](http://www.oecd.org/greengrowth/Issue%20Note%20Session%20One%20GGSD%20Forum.pdf)
- 57 Marten, M. et K. van Dender (2019), *The use of revenues from carbon pricing*, OECD Taxation Working Papers, n° 43, OECD Publishing, Paris, <https://doi.org/10.1787/3cb265e4-en>.
- 58 *Ibid.*
- 59 Compared to the pre-industrial period. Based on figures over the decade 2006–2015. See Figure 1.3, Allen, M.R., O.P. Dube, W. Solecki, F. Aragon-Durand, W. Cramer, S. Humphreys, M. Kainuma, J. Kala, N. Mahowald, Y. Mulugetta, R. Perez, M. Wairiu, and K. Zickfeld, 2018: Framing and Context. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Portner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Pean, 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.)]. In Press.
- 60 <https://data.worldbank.org/indicator/en.atm.co2e.pc?end=2014&start=1969>
- 61 Excluding export credits. OECD (2018), *Climate finance from developed to developing countries: 2013-17 public flows*, OECD Publishing, Paris, [www.oecd.org/environment/cc/Climate-finance-from-developed-to-developing-countries-Public-flows-in-2013-17.pdf](http://www.oecd.org/environment/cc/Climate-finance-from-developed-to-developing-countries-Public-flows-in-2013-17.pdf)
- 62 OECD (forthcoming), *Aligning Development Co-operation with the Objectives of the Paris Agreement*, OECD Publishing, Paris.
- 63 *Ibid.*
- 64 Glachant, M. and A. Dechezleprêtre (2017), “What role for climate negotiations on technology transfer?”, *Climate Policy*, Vol. 17/8, pp. 962-981, <http://dx.doi.org/10.1080/14693062.2016.122257>.
- 65 OECD/The World Bank/UN Environment (2018), *Financing Climate Futures: Rethinking Infrastructure*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264308114-en>.
- 66 *Ibid.*
- 67 <https://unfccc.int/process/the-paris-agreement/long-term-strategies>
- 68 OECD/The World Bank/UN Environment (2018), *Financing Climate Futures: Rethinking Infrastructure*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264308114-en>.
- 69 [www.oecd.org/environment/fossil-fuel-support-is-rising-again-in-a-threat-to-climate-change-efforts.htm](http://www.oecd.org/environment/fossil-fuel-support-is-rising-again-in-a-threat-to-climate-change-efforts.htm)
- 70 [www.euronews.com/2019/06/25/it-s-time-to-stop-talking-about-the-paris-agreement-and-start-acting-on-it-view](http://www.euronews.com/2019/06/25/it-s-time-to-stop-talking-about-the-paris-agreement-and-start-acting-on-it-view); <https://www.theguardian.com/commentisfree/2019/jun/26/shell-not-green-saviour-death-machine-greenwash-oil-gas>
- 71 [www.oecd.org/environment/green-budgeting/](http://www.oecd.org/environment/green-budgeting/)
- 72 [www.cape4financeministry.org/coalition\\_of\\_finance\\_ministers](http://www.cape4financeministry.org/coalition_of_finance_ministers)
- 73 [www.theguardian.com/world/2019/mar/02/meet-the-worlds-first-future-generations-commissioner](http://www.theguardian.com/world/2019/mar/02/meet-the-worlds-first-future-generations-commissioner)



## Climate: Reclaiming our Common Future

As the world gets ready to begin implementing the Paris Agreement on climate next year, countries are looking to ramp up action and develop long-term, low-emissions development strategies. At the same time, carbon dioxide emissions continue to rise and climate change is increasingly impacting on people's lives, disrupting national economies, exacerbating biodiversity loss and transforming ecosystems, including the ocean. The need for urgent, strong, co-operative action based on mutual trust and understanding has never been higher.

In his fourth biennial climate change lecture, OECD Secretary-General Angel Gurría focuses on how countries can overcome the numerous political, economic and social barriers to achieve the rapid reductions in greenhouse gas emissions needed to safeguard our common future. The Secretary-General argues that a shift in perspective is needed to ensure better two-way alignment between climate and wider societal goals.

The lecture was hosted by the Graduate Institute of International and Development Studies in Geneva on 3 July 2019.

---

For more information, visit: [oe.cd/climate-lectures](https://oe.cd/climate-lectures)

Engage with us on Twitter:

@OECD\_ENV

#OECDClimateTalk

© OECD, July 2019