

OECD Submission to the Talanoa Dialogue: “How do we get there?”

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The Organisation for Economic Co-operation and Development (OECD) welcome the opportunity to inform the discussion in the December session of the UNFCCC Talanoa Dialogue. The Dialogue addresses three important questions: 1) *Where are we?* 2) *Where do we want to go?* and 3) *How do we get there?*

This submission draws on recent OECD work to address the third question: *How do we get there?* The submission identifies opportunities for countries to increase the ambition of their climate action and highlights how countries can overcome barriers to implementing policies to transition to a low-emissions and resilient future.

The submission first explores how countries could align financial flows with the need to develop low-emission, resilient infrastructure. It then examines challenges and opportunities in putting in place the right price signals to steer economies towards low-emissions development pathways. The need for a just and inclusive transition is then addressed. Lastly, the submission provides an update of the current status of existing support measures for fossil fuels.

We need to invest in clean, resilient infrastructure

The Paris Agreement formally recognised the need to make financial flows consistent with low-emission, climate-resilient development. Infrastructure sits at the very centre of climate and development pathways. It underpins the development of societies, economic growth, productivity and well-being. Yet current energy, transport, buildings and water infrastructure make up more than 60% of greenhouse gas emissions. Scaling-up public and private investments in low-emission and sustainable infrastructure has now become crucial to increase resilience and avoid further carbon lock-in and the risk of stranding assets. The current infrastructure gap and the urgency of the climate challenge present a unique opportunity to create infrastructure systems that deliver on climate and sustainable development goals.

The OECD, UN Environment and the World Bank Group, supported by the German government, have joined forces to outline how countries can make financial flows consistent with the Paris Agreement goals. [Financing Climate Futures: Rethinking Infrastructure](#) calls on governments to go beyond an incremental approach to climate policy and think “outside the climate box”. The initiative was launched in April 2018 in response to the invitation in the 2017 G20 Hamburg Climate and Energy Action Plan for Growth to “compile ongoing public and private activities within the G20 for making financial flows consistent with the Paris goals and, building on this, to analyse potential opportunities for strengthening these efforts”.

In order to construct a low-emission, resilient transformation, action is required across six key transformative areas, which should be articulated with respect to country contexts, resource endowments and capacities. These are: planning, innovation, budgeting, finance, development and cities.

1. **Plan sustainable and resilient infrastructure for a low-emission and resilient future:** Aligning the planning of current pipelines of infrastructure projects with long-term climate objectives represents a great opportunity for countries to avoid carbon lock-in and the risk of stranding assets. This could be achieved by integrating climate and development objectives at

into long-term strategies, making resilience the norm (rather than the exception) in planning, and creating strategic foresight capacities in planning agencies to monitor emerging changes and regularly adjust long-term strategies.

2. **Unleash innovation to accelerate the transition to low-emissions technologies, business models and services:** Accelerating the deployment of existing technologies, business models and services, and swiftly moving the next generation of solutions from the lab to the market would open new opportunities for low-emission, resilient pathways. Priority actions to drive innovation include the following. First, deploying targeted innovation policies to create and shape markets for climate innovations. Second, scaling up public investment in Research and Development (R&D) of climate solutions, and promoting collaborative approaches to pool resources, lower R&D costs and technology risks. Third, overcoming the financial barriers to demonstration, deployment and early-stage commercialisation through co-founding mechanisms, loan guarantees and new coalitions of financial actors.
3. **Ensure fiscal sustainability for a low-emission, resilient future:** Governments can disentangle their fiscal reliance on fossil fuels and shift their economies towards cleaner, more sustainable revenue bases. “Carbon entanglement” – the dependence of governments on revenues from the production of fossil fuels – is a political economy and macroeconomic barrier to a low-emission, resilient future transformation that must be addressed if long-term climate planning also translates in budgetary policy. This can be achieved by diversifying government revenues away from fossil fuels, harnessing tax systems, including the use of carbon taxes and reform of fossil fuel subsidies, to incentivise investments and behaviours towards low-emission future and by anticipating and addressing the social consequences of the low-emission transition.
4. **Reset the financial system in line with long-term climate risks and opportunities:** This involves: First, encouraging investment practices with a climate impact, through the development of common taxonomies, definitions and metrics, and by removing perverse incentive that favour short termism. Second, disclosing climate-related risks and opportunities for investors and enhance scenario-based climate risk management strategies. Third, re-thinking the supervision of the financial system and climate policies in light of national circumstances and climate-related risks that could threaten the financial stability of the system in the short and longer term.
5. **Rethink development finance for climate:** Development banks – multilateral, bilateral and national – have a critical role to play in infrastructure finance, particularly in developing countries. Aligning the mandates of development banks with climate goals can not only lead the way in strengthening investment in developing countries, but can also enhance investment from private sources. However, for these banks to have a transformational impact, they need to play a much greater role in unlocking private capital and supporting policy reform. Scaling up climate action requires shareholder governments and the banks themselves to make three key changes: (i) Strengthening development banks’ mandates and incentives to deliver transformative climate action including through capacity building at all levels of management; (ii) bringing new investors and sources of finance to investments to create new climate markets; and (iii) using concessional finance to enable development banks to drive the transformation.
6. **Empower city governments to build low-emission and resilient urban societies:** Action in infrastructure investment begins with cities, which are increasingly the building blocks of modern societies. Empowering local and city governments to plan and finance the right infrastructure is an essential part of achieving climate goals. Cities are also particularly vulnerable to climate risks and must weigh strategies that ensure urban resilience. The failure to invest in the right urban forms will put residents, the local economy and social cohesion at risk, potentially exacerbating today’s inequalities.

Pricing greenhouse gas emissions is important for moving to emissions-neutral growth

Pricing carbon emissions allows countries to steer their economies towards and along a low-emissions development pathway. By putting a price on carbon emissions, countries can increase resource efficiency, boost investment in clean energy, develop and sell low-emission goods and services, and increase resilience to risks inherent in deep structural change. The [second edition of Effective Carbon Rates](#) report highlights the progress in pricing GHG emissions from the energy sector since 2012 in 42 OECD and G20 countries, representing 80% of world emissions. The main findings show that while the aggregate carbon pricing gap¹ is declining at a slow pace, there are some notable positive developments and opportunities:

- Using EUR 30 per tonne of CO₂ as a benchmark, the gap for the 42 countries as a whole dropped from 83% in 2012 to 79.5% in 2015, and is estimated to reach 76.5% in 2018. This decline is slow and cost-effective decarbonisation requires the carbon pricing gap to close much faster.
- New carbon pricing initiatives have the potential to significantly reduce the carbon pricing gap. Nation-wide emissions trading in China could lead to a significant drop of the global carbon pricing gap, to 63% in the early 2020s. Canada could close its national carbon pricing gap through new carbon pricing efforts by that time.
- Several countries, including France, India, Korea, Mexico, and the United Kingdom, shrank their carbon pricing gaps between 2012 and 2015. Korea implemented a national emissions trading system in 2015. France and Mexico reformed their taxes on energy use. The United Kingdom implemented a price floor for electricity sector emissions covered by the European Union Emissions Trading System. India reduced its carbon pricing gap by increasing excise duties on transport fuels.
- Closing the carbon pricing gap helps countries prosper in a low carbon economy and increases resilience. Countries that close the carbon pricing gap now encourage investment in clean technologies, create new markets and benefit from ever cheaper renewable power. Countries that continue to leave the gap wide open risk high dependency on increasingly uncompetitive technologies and very high transition costs.
- In addition, international co-operation and co-ordination on carbon pricing, for example through linking different emissions trading schemes, has the potential to improve the environmental and cost-effectiveness of carbon pricing.

In moving towards low-carbon pathways, we need to ensure the transition is just

- The need to ensure a just transition is increasingly recognised by the international community. The preamble of the Paris Agreement underlines “*the imperatives of a just transition of the workforce [...] in accordance with nationally defined development priorities*”. To this end, several countries or regions (e.g. the [European Union](#), [Canada](#) or [New Zealand](#)) are already developing initiatives to support workers and regions that are likely to be affected by the low-carbon transition.
- **The literature - albeit somewhat limited - suggests that the aggregate labour market consequences of climate policies are likely to be modest.** This is mainly due to the small share of total employment that the most heavily impacted sectors often represent (mostly

¹ The aggregate carbon pricing gap summarises the current use of market-based, cost-effective tools to decarbonise across the 42 countries studied.

energy sectors). Recent OECD modelling² suggests that carbon pricing will lead to a total job reallocation (i.e. the sum of job creations and job destructions) of around 0.3% for OECD and 0.8% for all non-OECD countries. As a comparison, total job reallocation accounted for 20% of total employment in the OECD area in 1995-2005³ while involuntary job loss due to economic factors (e.g. economic downturns or structural change) annually affects 2-7% of the domestic workforce in the countries for which data are available⁴. Nevertheless, at the disaggregated level, several sectors, such as extractive industries and energy intensive industries due to higher energy prices, are likely to see more severe contraction in production and employment.

- **In order for transition to be just, gender, age and geography-related challenges will need to be addressed.** First, the transition may be characterised by two interrelated gender dimensions. In fact, workers employed in the extractive industries and the energy utilities – two of most negatively impacted sectors – are mostly men.⁵ At the same time, the renewable energy industry, which is expected to dramatically expand under most decarbonisation scenarios and whose workforce is more gender-balanced than the traditional energy sector, suggest that female employment may increase in this traditionally male-dominated industry. Secondly, there is also a tendency for older workers to be over-represented in carbon-intensive industries in certain OECD countries.⁶ This has important implications for the expected adjustment costs since older workers often face above-average displacement costs⁷. Thirdly, the impact of the transition is likely to be geographically concentrated as fossil fuel extraction sectors are naturally localised in specific geographic areas.
- **Several OECD and non-OECD countries have developed a considerable experience in managing sectoral adjustments that can be leveraged to ensure a fair low-carbon transition.** Examples of previous restructuring processes include trade-adjustment programs in USA, restructuring of the steel industry in Europe or of the textile industry in Colombia⁸ ⁹. These previous experiences underline the role a suite of policy instruments may play. These include both structural reforms to ensure that firms and workers can quickly adjust to new

² Chateau, J., R. Bibas and E. Lanzi (2018), “Impact of green growth policies on labour markets and wage income distribution: a general equilibrium application to climate and energy policies”, pp., Forthcoming. Notably, simulations results depend on key modelling assumption. The results reported here are based on the central scenario discussed in the paper that assumes the introduction of an homogenous USD 50 t/CO₂ carbon tax across all countries.

³ <http://www.oecd.org/els/emp/thejobspotentialofashifttowardsalow-carboneconomy.htm>

⁴ https://www.oecd-ilibrary.org/employment/oecd-employment-outlook-2013/back-to-work-re-employment-earnings-and-skill-use-after-job-displacement_empl_outlook-2013-8-en

⁵ Botta (2018), *A Review of “Transition Management” Strategies: Lessons for advancing the green low-carbon transition. Issue note for the GGSD 2018 Forum on “Inclusive Solution for the green Economy”*, OECD, Issue note for the GGSD 2018 Forum on “Inclusive Solution for the green Economy” (forthcoming).

⁶ OECD (2012), *The jobs potential of a shift towards a low-carbon economy, Final report for the EU Commission, DG Employment*, OECD, Paris

⁷ OECD (2005), *OECD Employment Outlook*, OECD Publishing, Paris; OECD (2005), *Trade and Structural Adjustment: Embracing Globalisation*, OECD publishing, Paris.

⁸ OECD (2005), *Trade and Structural Adjustment: Embracing Globalisation*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264010970-en>.

⁹ OECD (2016), *Back to Work: United States: Improving the Re-employment Prospects of Displaced Workers, Back to Work*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264266513-en>.

economic opportunities¹⁰ and active labour market policies to facilitate the matching in the demand and supply of work¹¹. Skill policies (i.e. policies supporting the development and formation process of skills of the workforce) will need to ensure that workers that leave a declining sector expand their competencies while targeted programs may need to be put in place for workers employed in industries whose knowledge base is likely to change due to the decarbonisation process (e.g. automotive)¹². Furthermore, regions that have been severely degraded by mining activities can benefit from programmes addressing environmental degradation. Finally, both OECD and non-OECD countries devoted considerable resources to facilitate sectoral adjustment during past restructuring process. Within this context, a portion of the revenues raised through carbon pricing may be leveraged to ease the impact of the transition on workers.

Progress towards phasing-out fossil fuel subsidies has been significant, further efforts are still needed.

The [OECD Companion to the Inventory of Support Measures for Fossil Fuels 2018](#) report provides transparent information on global support to fossil fuels and a single estimate of the magnitude of support to fossil fuels for both production and consumption. The current estimates of support to fossil fuels range between USD 373 billion and USD 617 billion over the period 2010-2015, covering 76 economies that collectively contribute 94% of global CO₂ emissions. Moreover, the report estimates the subsidy-element of government credit assistance to fossil-fuel-related projects, a type of foregone revenue. This source of support is pervasive and can result in inefficient allocation of public resources by locking-in long-lived carbon-intensive capital assets. Preliminary results show that this type of support to fossil-fuel-related projects contributed to an additional support ranging from USD 2.2 to 14 billion granted annually by G20 countries and multilateral development banks.

Although the report highlights that the progress towards phasing-out fossil fuel subsidies has been significant, further efforts are still needed. Over the past two decades, only a quarter of the total number of measures identified in the *Inventory of Support to Fossil Fuels* has been phased-out, and 21 measures have been added over the past two years. Since most support measures in place today have been introduced before 2000, countries would benefit from a critical self-assessment to revisit the relevancy and effectiveness of these measures in meeting their policy objectives.

The OECD collaborates with many of the institutions that develop information on fossil-fuel support, to ensure these efforts do not overlap and to enhance transparency in this area. Further co-ordination is needed, especially as inconsistencies in definitions and data often represent obstacles for action in this area. Greater co-ordination efforts could also help move towards a consensus on key concepts, such as the conditions under which support to fossil fuel is not considered as “inefficient”.

¹⁰ OECD (2017), *Investing in Climate, Investing in Growth*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264273528-en>.

¹¹ OECD, 2015b. *Activation policies for more inclusive labour markets, in: OECD Employment Outlook*. pp. 105–166. doi:10.1787/empl_outlook-2015-7-e

¹² OECD (2017), *Getting Skills Right: Good Practice in Adapting to Changing Skill Needs: A Perspective on France, Italy, Spain, South Africa and the United Kingdom*, Getting Skills Right, OECD Publishing, Paris, <https://doi.org/10.1787/9789264277892-en>.