

WWF DISCUSSION PAPER
**JUST ENERGY
TRANSFORMATION**

November 2021

SUMMARY FOR POLICYMAKERS

WWF presents a discussion paper that makes the case for implementing the ‘just energy transformation’. Starting from the premise that energy transitions and social justice questions are intrinsically linked, the paper identifies the different elements that must pull together and integrate to enable successful energy transitions that deliver on the Sustainable Development Goals. Only by promoting the synergies between environmental, economic and social goals can we ensure energy transitions contribute to delivering a future that will be fair, sustainable and climate neutral. As WWF, we invite partners to join us in discussing how to take this concept forward in practice.



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The rationale for climate action is to secure a safe world in which the wellbeing and future of humanity are protected. This is only possible if the entire global community is organised behind the urgently needed transition from fossil fuels to renewable energy. A major contributor to climate action is this energy transition. In line with the rationale for climate action, energy transitions at any scale should be just, preventing new inequalities or injustices and avoiding the exacerbation of existing ones.

- Climate action is in the interests of all and is the responsibility of all
- Energy transitions, which are vital components of climate action, should also be just

We can no longer treat energy transitions separately from questions about social justice. 2021 has underscored the risks of not tackling climate change, especially to the poorest: they are the least resilient to increased extreme weather events like droughts, wildfires and floods; as well as to the costs of remaining dependent on price-volatile fossil fuels. At the same time, nearly 800 million people lack basic access to electricity and consequently suffer the impacts of polluting and inefficient energy systems. Just energy transitions will work with just transitions in other sectors, contributing to a broader just transformation of society; they will necessarily require integrated approaches drawing on different disciplines and modes of action.

To be just for all, energy transitions must be designed and implemented in the context of a broader societal transformation to a fairer, and sustainable, climate neutral future where nature and people can live in harmony and in which the rights and needs of future generations are protected. They should therefore uphold and even actively deliver on the Sustainable Development Goals (SDGs).

Energy transition investments should be aligned with – and actively contribute to – the achievement of the SDGs. In particular, energy transition investments should be resilient to climate impacts and support clean and affordable energy access

The just energy transformation focuses on the systemic changes needed in the energy sector to simultaneously deliver on climate targets and also on sustainable development goals to achieve a more equitable, sustainable and climate safe world. It brings together pillars and enablers of this broad and global transformation, which in turn must drive the vehicles - climate justice and just transitions on the ground - that can deliver it. Recognising the urgency to tackle climate change, in the context of slow progress (and even backtracking) on the SDGs, WWF sets out its vision for a just energy transformation approach in this paper.

This vision is summarised below:

- **Ambition:** Climate ambition to keep global average temperature increase below 1.5°C is imperative for energy transitions to be just. Only by keeping global temperature rise within 1.5°C can we avoid the worst impacts falling on those who are least culpable: the poorest and future generations. For this reason, high climate ambition is central in just energy transitions, especially ones that can unlock an overall just energy transformation.
- The just energy transformation is facilitated by enablers, or enabling conditions to deliver long-term and stable just transformative outcomes. A just energy transformation is supported by:
 - **Economic and Social Policy:** public spending and policy frameworks support ambitious, sustainable and just energy transitions. They drive increased sustainable energy supply diversity and embed strong social and employment rights frameworks. The cost benefit analyses underpinning these policies go beyond growth and GDP considerations and instead use social and ecological indicators to define progress.
 - **Biodiversity and conservation:** as biodiversity, ecosystems and natural resources are the bedrock of the wellbeing of society, energy transitions and the overall energy transformation do not significantly harm natural resources, biodiversity or ecosystems. Wherever possible, they unlock synergies between energy, development and biodiversity goals. International climate finance and support is directed to low carbon, low-cost and low conflict projects, as well as to improving systemic planning so that synergies between these important goals can be maximized.

- **International cooperation and finance:** only by adopting a cooperative approach can we ensure an overall just energy transformation. Limiting global temperature rise to 1.5°C is vital for the wellbeing of all. Dialogue and cooperative structures are established to support the delivery of the just energy transformation. Agreements on - and support for - phasing out fossil fuels are crucial, while solidarity for just energy transitions globally benefits everyone.
- **The vehicles and principles for delivering the overall just energy transformation are based upon the key concepts of climate justice and just transition.** The two cannot be wholly separated from one another for comprehensive justice in energy transitions, although their scope in each case is different. Both require international and intergenerational solidarity as central tenets for truly just outcomes, and necessitate that energy transitions are planned inclusively and openly. Resources are targeted at the most vulnerable, including to increase access and ownership of clean and affordable energy. Climate justice and just transition together deliver the pillars and enabling conditions to secure truly a just energy transformation

The tools available to deliver such a holistic and integrated approach to energy transitions are available. Nationally Determined Contributions provide a framework for national governments to strategically plan their whole system transformations to deliver on the global target of 1.5°C, but they cannot achieve this alone. Energy transition decisions must be embedded in economic and social policy and will rely on strong foundations protecting nature and our natural resources. A cooperative approach (at the local, regional and international level) that simultaneously recognizes the imperatives of climate justice, equity and just transition is vital.

The sections below introduce the just energy transformation concept in more detail, exploring what it means from different angles. We explore in depth the central pillar of ambition which must be integrated into energy transitions to secure an overall just energy transformation. These energy transitions must also be just on the ground, meaning they must implement and align with the complementary principles and practices of just transition and climate justice. We also highlight the enablers of the broader just energy transformation: adaptation and resilience, economic and social policy, as well as biodiversity and conservation. The aim is to stimulate discussion and debate on how we can together achieve a just energy transformation in practice.



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About WWF:

WWF is an independent conservation organization, with over 5 million supporters and a global network active in over 100 countries. WWF's mission is to stop the degradation of the Earth's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

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INTRODUCTION

THE ENERGY TRANSITION IS IRREVOCABLY LINKED TO SOCIAL JUSTICE

The world still has a chance to avoid catastrophic climate impacts. Limiting global average temperature rise to 1.5°C is widely accepted as the threshold below which the most devastating impacts of climate change are avoided. The international community has committed to make efforts to stay below this threshold, and models suggest that achieving this will require global greenhouse gas emissions to reduce to net-zero emissions by 2050 or sooner.

Critical to avoiding extreme climate impacts will be an immediate end to investment in all fossil fuels and a full phase out of fossil-fuelled electricity by 2040. The pathway to limit global temperature rise to 1.5°C is narrow. Mapped in the International Energy Agency's May 2021 Net Zero by 2050 report, achieving the stipulated milestones would allow the world to deliver cost-effective net-zero emissions energy systems that are in line with energy access goals by 2050. The report draws attention to massive investments that will be essential to meeting these goals: moving from an annual energy investment of \$2 trillion now, to \$5 trillion a year in the next 9 years to 2030. It also reinforces the consensus that a net-zero emissions energy system will be primarily based on renewables.

At the same time, around 800 million people still lack basic access to electricity, while over one third of the global population lack access to clean cooking solutions. At current rates of progress, the sustainable development goals will be missed and in some regions such as sub-Saharan Africa, progress on affordable and clean energy for all² is in reverse. We must decarbonize energy systems while in parallel accelerating reliable and affordable energy access: a systemic transformation is needed.

The speed and size of the systemic change required will touch everyone and every region, community and sector. The energy sector will see unprecedented change over the next two decades. While estimates suggest that over 75% of global greenhouse gas emissions in 2016 can be attributed to energy (including electricity, heat,

buildings and transport), the potential of the sector to decarbonize is huge. The impacts of reducing emissions will be particularly felt in communities and regions dependent on, or linked to, the energy sector; both due to the necessary and rapid phase out of fossil fuels and the transition to renewable energies.

The energy transition is expected to bring huge opportunities. The IEA's pathway to net-zero emissions by 2050 would create an estimated 30 million jobs, while sensitively-deployed renewable energies are expected to reduce energy sector pollution, increase energy access and even empower communities thanks to their higher decentralization potential.

However, for some groups and regions, the costs of the transition may outweigh the benefits without proactive management. The COVID-19 pandemic and the global response that it triggered have shown us that centrally driven action is effective, but disproportionately favours the wealthy over the poor both at a global and a national scale. Five million jobs may be lost in countries dependent on fossil fuels by 2030 alone¹ and communities are already suffering from unchecked expansion of raw material extraction to fuel the transition to renewable energies. The traditional international financial and administrative systems which are expected to manage such global action have themselves proven to be partisan, too slow or too complex to favour the poor and, if they operate as they have before, will cause growing inequality between those who can afford to pay versus those who cannot.

¹ According to UN Statistics, available at: <https://unstats.un.org/sdgs/report/2020/goal-07/> - 2018 statistics

² Sustainable Development Goal 7 of the UN 2030 Agenda for Sustainable Development adopted in 2015.

³ According to updated data from World Resources Institute from August 2021, energy use produces 76% (37.2 GtCO₂e) per year. Available at: <https://www.wri.org/insights/4-charts-explain-greenhouse-gas-emissions-countries-and-sectors>

Failing to address these potential injustices will leave the sustainable development goals unfulfilled, generate widespread suffering, and even risk derailing the transition through widespread resistance. The phenomenon of the *gilet jaunes* in France and the sometimes violent protests of coal communities around the world when coal mines are shut, leaving many without alternative means of making a living testify to this risk. Proactively tackling the danger that the transition drives injustices is the premise of the united calls across society – and in the Paris Agreement – for just transition: transitions to environmentally sustainable societies in which no one is left behind.

But tackling these injustices cannot be seen as an excuse to delay the transition needed. While the countries most responsible for climate change must go faster than others, we do not have time for any more investment in fossil fuels. Climate change is already causing increased extreme weather events and eroding the natural resources and ecosystems upon which the foundations of human wellbeing are built. Each fraction of a degree temperature rise contributes to extreme floods, droughts and wildfires, driving the loss of ecosystem services.

The impacts of global heating above 1.5°C will be devastating for all of us, but especially for the poorest and most vulnerable in society, as they are the least able to adapt. Global leaders have recognized that climate change is causing - and will cause - the most negative impacts on populations in some of the world's least developed countries. Failing to tackle climate change and protect the biodiversity that underpins global wealth now, when we still have the possibility to avoid such negative consequences, raises serious questions for intergenerational justice.

Tackling climate change itself – and moving to a sustainable, 100% renewable global energy system – is vital for social justice. The good news is that while the transition generates challenges, it also generates opportunities for achieving both environmental goals and socio-economic objectives.

The parallel environmental and socio-economic challenges are interlinked and must therefore be tackled together. The pursuit of one socio-economic goal should never be set into real or perceived conflict with the achievement of environmental goals and vice versa if we intend to achieve a truly sustainable and fair system for all.

WHAT IS THE JUST ENERGY TRANSFORMATION, AND WHY IS IT NEEDED?

Proactive management of the transition to avoid the creation of new injustices, and in the best cases to address existing injustices, is known as the just transition. It involves sharing the benefits of sustainable transitions widely, while seeking to minimize and avoid disproportionate negative impact on the most vulnerable. The concept is now mainstream.

The just transition is relevant across all sectors, but has been applied most commonly in the context of the energy transition. This is because this sector has the potential for rapid transition to sustainable climate neutrality. However, securing a just transition in one sector or region, or for one group, will not in itself bring about the systemic change needed to meet our environmental and socio-economic goals.

Frameworks to understand, design and deliver just transitions, especially for the energy transition, have been developed and are currently being applied around the world. A gold standard for just transition practice is captured by the International Labour Organisation's Guidelines for a Just Transition to environmentally sustainable societies, as published in 2015⁴. WWF supports these guidelines and recognizes their legitimacy as the main reference for guiding just transitions.

Energy transition will impact differently, varying from region to region, country to country, community to community and from person to person. The dictum that there is no one size that fits all is true. As such, just transitions must be seen in their specific contexts and energy transitions should be planned and implemented locally.

But while just transitions in different countries, regions and sectors are necessarily context specific, they don't take place in isolation. By standing and acting in solidarity in the face of a changing climate, we can limit the global temperature rise to 1.5°C in order to avoid negative climate impacts. Likewise, we must not prioritize the just transition of one group over the other: solutions must respect the rights, values and needs of everyone while the costs and benefits of the transition must be equitably shared.

⁴ ILO Guidelines for a just transition towards environmentally sustainable economies and societies for all, adopted in 2015 and available at: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf

Transitions must contribute to a broader, nature-positive transformation of society to a fairer and sustainable system from the local to the global level. We face unprecedented, parallel social and environmental crises, driven by pursuit of traditional economic growth measured in GDP gains and blind to the value of, and impacts on, nature. It is consequently becoming ever clearer that we need deep systemic redesign which puts fairness, alongside social and environmental goals, upfront. Truly just transitions will be guided by, contribute to and deliver on the Sustainable Development Goals, aligning with the broader systemic transformation needed for long-term sustainability. WWF discusses further what is needed for just economic transitions as a whole to deliver a nature-positive transformation of society in the discussion paper, “Just transitions towards a nature-positive economy: Learning from stories of change”.⁵

Just transitions must work together around the world to ensure real and widespread justice. In line with the climate justice principle of common but differentiated responsibilities and respective capabilities (CBDRRC), developed countries with greater wealth and historical responsibility for climate change must implement such transitions from fossil fuels - including oil and gas - first. However, the transitions must start now everywhere. Recognizing that failing to tackle climate change will impact us all negatively, and in line with the CBDRRC principle, wealthier countries must in parallel support poorer countries to begin their just transitions to renewables and out of fossil fuels for good immediately.

WWF PROPOSES THAT JUST TRANSITIONS ARE DESIGNED AND IMPLEMENTED IN THE CONTEXT OF THE BROADER OBJECTIVE OF SOCIETAL TRANSFORMATION TO AN EQUITABLE AND SUSTAINABLE, CLIMATE NEUTRAL FUTURE.

GIVEN THE IMPERATIVE OF A RAPID ENERGY SECTOR TRANSITION, WE FOCUS ON POTENTIAL TRANSITIONS WITHIN THE ENERGY SECTOR, BUT ACKNOWLEDGE THAT THESE ARE NOT WHOLLY SEPARATE FROM OTHER SECTORS AS A WHOLE

⁵ Available at: https://wwfint.awsassets.panda.org/downloads/just_transitions_towards_a_nature_positive_economy_summary_1.pdf

⁶ As outlined in CAN Europe' Just Transformation Vision and Principles (May 2021). Available at: <https://caneurope.org/just-transformation-vision-principles/>

The diagram below explains in more detail what is meant by a just energy transformation approach. Energy transitions and ambition should be interlinked through the prism of (climate) justice, which in turn must be delivered by the vehicle of just transitions and climate justice on the ground. Ambition and justice (through climate justice and just transition) in the context of the just energy transformation are explored further in the deep dives in the sections below.

Enablers, such as biodiversity protection, international cooperation and finance, and economic and social policy can support the pillars of energy transition and ambition to ensure they contribute to the wider just energy transformation. This just energy transformation, as represented in this diagram, might in turn integrate into an even broader concept of an economy and society wide just transformation for all, although this is not the subject of this paper.

JUST ENERGY TRANSFORMATION

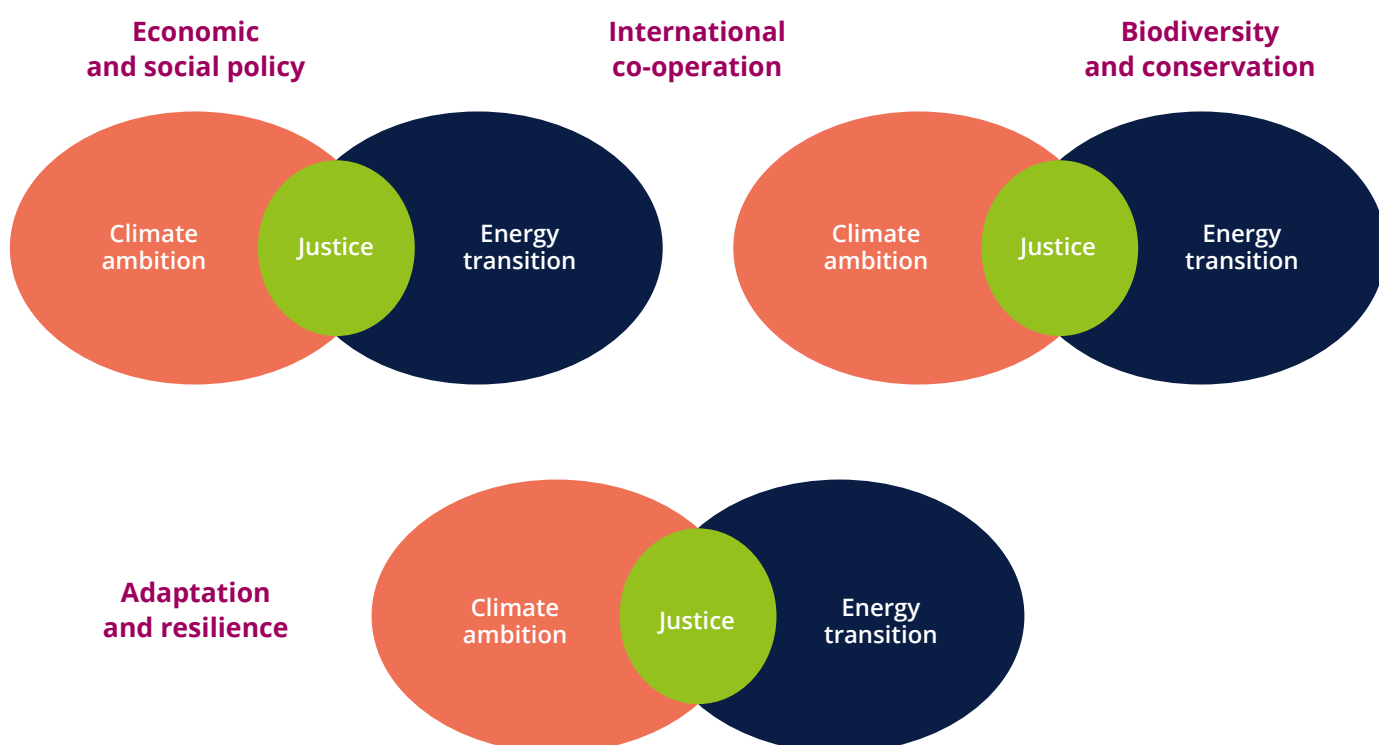


Diagram 1:

Visual representation of just energy transformation (JET) in which the enablers (purple text), and the transitions in each territory/sector, all contribute to a systemic transformation across society. The system wide transformation is represented by the surrounding box while the Venn diagrams represent individual transitions. Justice, delivered through the vehicles of climate justice and just transitions sit at the intersections of energy transitions and climate ambition.

Just energy transformation will require collaboration and redoubling of efforts by all actors in order to strengthen frameworks at all levels. The objectives and principles of climate justice and just transition should be united and aligned together into a coherent whole.

We dive more deeply into what a just energy transformation, as opposed to the energy transition on its own, means in practice in the sections and examples below. Each section includes a summary box, illustrating what is needed for a just energy transformation. The precise details of how to deliver on these indicators and who is responsible for them should be developed further in collaboration with partners.

⁶ As outlined in CAN Europe' Just Transformation Vision and Principles (May 2021). Available at: <https://caneurope.org/just-transformation-vision-principles/>

⁸ According to updated data from World Resources Institute from August 2021, energy use produces 76% (37.2 GtCO₂e) per year. Available at: <https://www.wri.org/insights/4-charts-explain-greenhouse-gas-emissions-countries-and-sectors>

AMBITION: THE COUNTERPART OF ENERGY TRANSITION FOR JUST ENERGY TRANSFORMATION

AND THE LINK TO NATIONALLY DETERMINED CONTRIBUTIONS

The central role of Climate Ambition in securing a just energy transformation

Securing just transitions and delivering a just energy transformation should be seen as a vital aspect of a country's climate ambition. But ambition is also a central basis for the just energy transformation.

In an effort to foster Nationally Determined Contribution ('NDC') enhancement, WWF has developed the #NDCsWeWant Checklist to benchmark updated NDCs. This recommends that a blueprint for such economy-wide just transition strategies accompanying climate ambition pledges in NDCs is developed. NDCs must be ambitious, aligning with a 1.5°C trajectory; comprehensive and holistic. They need to be inclusively and transparently developed, knitting together energy and other transition plans with social policies and whole-economy just transition strategies which will lead to the creation of decent work and quality jobs, as well as the delivery of the sustainable development goals by tapping synergies between social and environmental goals. WWF's expectations in this regard include the following principles:

- Just transition should be embedded across differentiated responsibilities - meaning countries should uphold these principles domestically but also internationally, if and where they provide international finance and support.
- Energy transitions must be planned and aligned with a trajectory limiting global average temperature rise to 1.5°C and NDC ambition increased to reflect this.
 - This means no new exploration for oil and gas resources and a phase out of all existing coal, oil and gas in line with a 1.5°C trajectory everywhere in the world. Fossil gas must not be labelled as a 'transition fuel'.
- NDCs should be adequately detailed to outline how renewable energy will be increased and energy efficiency implemented to achieve the 1.5 target, and this detail should be elaborated through Implementation Plans/ Planning with specific and measurable targets, including also for reskilling and training.
- NDCs should also include specific detail on how the energy transition will be financed, and this detail be evaluated against criteria to ensure the poorest and most vulnerable are not disproportionately bearing the cost of transition.
- Successful NDC implementation is a whole of government and whole of society activity. Governments must ensure relevant and long-term market signals to non-governmental actors, and should be done in a way that supports just transformation across sectors.

At the core of a just energy transformation is ambition. Only by aligning energy transition with limiting average global temperature increase to 1.5°C, can we achieve justice for all. The Intergovernmental Panel on Climate Change Special Report on the impacts of global warming of 1.5°C underlines the much greater risks and challenges associated with a higher average global temperature rise, likely to be exacerbated further by overshoot. The impacts of a hotter Earth will already be significant at this level, and each fraction of a degree higher will have substantially greater negative impacts, on ecosystems and species loss, on the likelihood of extreme weather events and sea level rise.

The impacts of a hotter Earth will hit the poor and most vulnerable the hardest. The most vulnerable groups are most likely to be exposed to the greatest negative impacts of climate change: the biggest impacts will be felt in some of the world's poorest regions, while those with the fewest resources already have the least capacity to adapt to the stresses like food insecurity and loss of livelihood imposed by a changing climate. The bigger the climate change, the greater the impact. It is estimated that a 2°C average global temperature rise would double the population at risk of water scarcity⁷, as well as put up to 50% more people in Africa at risk of undernourishment. The impacts are already being felt in drought-prone sub-Saharan African countries, where the number of undernourished people has increased by 45.6% since 2012⁸.

Accelerate decarbonization now, and fast - no more excuses. We have already exceeded 1°C in global heating above pre-industrial levels. Current policies around the world are projected to result in about 2.9°C global heating above pre-industrial levels. Meanwhile, as per the UNFCCC's NDC Synthesis Report, Nationally Determined Contributions (NDCs); plus continued comparable efforts beyond 2030, would limit warming to about 2.7°C⁹ by the end of the century. At the same time, the IEA's Net Zero roadmap report published in May 2021 points to the energy sector as holding the key to responding to climate change and unequivocally underlines the need to end new fossil fuel investments¹⁰ to attain our international climate goals.

The impacts of this transition will be huge, requiring action across all parts of the economy and in every region of the world. It will also require massive upfront investment. The IEA estimates that achieving net-zero emissions in line with a 1.5°C trajectory means a massive increase in annual energy system investments, from around \$1.6 trillion today to \$5 trillion by 2030. This will not only avert climate catastrophe, but could also create millions of new, clean jobs and bring many co-benefits for nature and health.

But the poorest must not be made to disproportionately bear the costs of this transition. There is a risk that the poorest not only suffer worst from the impacts of climate change, but they also feel the burden of the costs of the transition the most and feel its benefits last. This can be because of many factors, including the upfront costs of investment in clean and sustainable technologies, the disproportionate impact of energy unit cost increases, and the risk that new jobs in emerging sectors offer worse conditions and don't benefit from hard-won advantages secured by collective bargaining and social dialogue in traditional industries.

The following case stories illustrate what is meant by ambition for just energy transformation.

⁷ IPCC, 2018: 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 [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. In Press.

⁸ Kappelle, Maarten. (2020). State of the Climate in Africa 2019. 10.13140/RG.2.2.27938.25280.

⁹ UNFCCC, 17th September 2021 "Nationally determined contributions under the Paris Agreement. Synthesis report by the secretariat". Available at: https://unfccc.int/sites/default/files/resource/cma2021_08_adv_1.pdf

¹⁰ The report makes clear that, from today, there should be "no investment in new fossil fuel supply projects, and no further final investment decisions for new unabated coal plants. By 2035, there will be no sales of new internal combustion engine passenger cars, and by 2040, the global electricity sector has already reached net-zero emissions."

TITLE:
CHILEAN NDC

WHAT WE WANT TO SEE:
WELL-DESIGNED NDCS CAN CONTRIBUTE TO JUST ENERGY TRANSFORMATION

WHERE: CHILE

WHEN: 2021

Chile's updated Nationally Determined Contribution (NDC) recognizes the importance of aligning the climate and sustainable development agendas. WWF found that the updated NDC has only a #ShortWaytoGo to be the NDC we want. Part of the positive rating is due to developments in the Just Transition and Sustainable Development pillar, where it introduced a new socioeconomic perspective to the NDC.

This innovative social pillar ties together mitigation, adaptation, and integration commitments, focusing on simultaneously realizing a just transition and the SDGs. As part of this component, Chile commits to guide implementation of its NDC actions based on criteria consisting of: synergies with the SDGs, with each commitment contributing to the fulfilment of one or more SDG; just transition needs; water security; gender equality and equity; cost-efficiency; nature-based solutions; inclusion of both scientific and traditional knowledge of indigenous people and local knowledge systems, where available; and participation of citizens. Nature-Based Solutions are considered under this approach, in line with their IUCN definition of "actions seeking to protect, sustainably manage and restore natural or modified ecosystems, addressing social challenges effectively and adaptively, while simultaneously providing benefits for human well-being and biodiversity".

In addition, by 2021, Chile intends to develop a 'Strategy for Just Transition' that protects the rights of the most vulnerable during the decarbonization process and ensures active participation of citizens in both its design and implementation. We recommend that the KCI analyses Chile's approach to develop its NDC and draws key lessons to inform other Parties to the Paris Agreement on developing NDCs that link Just Transition and the SDGs. This will facilitate the development of coherent and integrated policies and approaches across economic, environmental and social realms to enable the transition.

CAVEATS

It is clear that real just transition is dependent not just on design, but also on implementation.

While the framework Chile is developing offers a lot of potential, pending issues and questions about its design and future implementation remain.

WWF is concerned by reports that social dialogue has not been conducted to inform its NDC, nor its coal phase out plans. A just transition can only be just if it is inclusive and developed in line with the ILO guidelines for a just transition towards environmentally sustainable societies for all. (Consequently, it is unclear whether there will be new jobs and a just transition for workers, in particular those in the coal sector in Chile. Moreover, it is concerning that the International Trade Union Confederation has placed Chile in category 4 of its annual Global Rights Survey of workers' rights around the world, meaning there appear to be 'systematic violations of rights'.)

¹⁰ The report makes clear that, from today, there should be "no investment in new fossil fuel supply projects, and no further final investment decisions for new unabated coal plants. By 2035, there will be no sales of new internal combustion engine passenger cars, and by 2040, the global electricity sector has already reached net-zero emissions."

¹¹ According to updated data from World Resources Institute from August 2021, energy use produces 76% (37.2 GtCO₂e) per year. Available at: <https://www.wri.org/insights/4-charts-explain-greenhouse-gas-emissions-countries-and-sectors>



ENABLERS OF JUST ENERGY TRANSFORMATION

ECONOMIC AND SOCIAL POLICY

Securing just transitions and delivering a just energy transformation should be seen as a vital aspect of a country's climate ambition. But ambition is also a central basis for the just energy transformation.

Economic and social policy has a foundational role to play in delivering a just energy transformation. To ensure that it can fulfil that role, WWF calls for:

- Public spending and policy frameworks that incentivize and prioritize sustainable energy transitions by setting up a favourable environment for socially-fair investments in renewables, energy efficiency and sustainable development support, independent of GDP and growth concerns. These frameworks should likewise phase out all fossil fuel subsidies according to a strict and speedy timeline.
- Energy policy frameworks that enable investment in the green and 1.5 aligned energy transition, including favourable investment conditions for truly sustainable investment; such as green bonds, taxonomies and sustainable investment guarantees.
- Strong social and employment rights frameworks, across society and for both existing and emerging sectors, developed through structured collaboration between industry, social partners and government.
- National and regional policies that increase sustainable energy supply diversity for increased resilience to shocks.
- Comprehensive analysis of transition impacts across social groups, sectors and regions to inform holistic policymaking.

A just energy transformation will be built upon new investments in energy infrastructure. The level of investment needed reflects the scale of the climate challenge at hand, and very large upfront capital expenditures will be needed to develop the new energy infrastructure which will be its foundation. Public finance is essential but insufficient to meet the scale of this challenge alone. Economic policies and investment support, such as through concessional capital and guarantees, should incentivize sustainable and socially fair public and private investment in the energy transition at national and international level.

Investment-friendly conditions and fair sharing of costs are primary conditions for just energy transformation. Long-term, stable and clear energy local, national and international policy frameworks can send the right signals to attract the significant private financing needed. It is essential that the economic frameworks

in place incentivize and support such clean energy investment, avoiding the costs of the energy transition being transferred to those least able to pay, while privatizing the eventual benefits.

In some cases, investments will not be possible to drive by the market alone. Especially early on in the energy transition, but also in cases of energy access (such as in rural areas), investment will require public support. In these instances, dedicated support streams will need to be established on the grounds of their necessity for delivering on sustainable development goals.

Public spending and fiscal policies should prioritize the sustainable and socially fair energy transition. Growth on its own does not deliver positive social outcomes and has traditionally been associated with a decrease in shared natural resource wealth, which in turn underpins wellbeing. For too long, economic growth has been

prioritized above social and ecological wellbeing, while public spending is cut. Cost-benefit analysis should go beyond growth and GDP considerations; instead, social and ecological indicators defined by progress towards the sustainable development goals should guide public spending decisions.

The energy transition will itself bring about significant changes in jobs and employment, creating new types but also leading to the loss of existing ones. In many of the declining industries, workers have unionized and obtained hard won rights and conditions. For a just energy transformation, this changing employment picture should not lead to an erosion in quality of work and workers rights. Governments, industry and social partners must therefore work together to ensure the right frameworks, re-training and protections are in place for workers in declining industries and also in both transforming and emerging sectors.

At the same time, governments must analyse the impacts of the transition across society and across industrial sectors. In this way they can develop economic and social policy appropriately in order to develop the

best frameworks and direct limited public resources effectively to where it is needed, supporting the vulnerable to transition where needed and to clean investment.

Finally, a just energy transformation will lead to increased resilience in energy supply, as well as strengthen social, ecological and economic well-being. Sustainable economic and energy supply diversification can enhance resilience to future shocks and changes and avoid unbearable costs falling on vulnerable groups by minimizing the impact of those that do occur. Job losses will be less widespread in the event of future changes, and communities will be better able to cope. Done well, it can also reduce negative environmental impacts of economic activity by reducing the intensity of resource use and supply chain length. Social and economic policy should incentivize sustainable diversification of the economy and the energy supply.

The following case story contributes to illustrating what is meant by economic and social policy as an enabler of just energy transformation.



TITLE:
**AN EU WELLBEING ECONOMY
(WWF REPORT)**

WHAT WE WANT TO SEE:
**GUIDING POLICY MAKING THROUGH SDGS, RATHER THAN
GDP MEASUREMENT**

WHERE: EUROPE

WHEN: OCTOBER 2019

The Council of the European Union – the body in which all Member State governments are represented – adopted conclusions on an economy of wellbeing in October 2019. These conclusions underlined that people’s wellbeing and economic growth are interdependent and mutually reinforcing. As such, wellbeing is not just a value in itself, but also a key to economic growth, productivity, fiscal sustainability and societal stability.

The Conclusions recognized that GDP is a measure of market production and not wellbeing. They invite the Member states and the European Commission to include an economy of wellbeing perspective horizontally in national and Union policies and to put people and their wellbeing at the centre of policy design.

While the population of the EU is generally recognised to benefit from prosperous lives with better education, wealth and health than ever before, homelessness is an increasing problem for many Member States and 1 in 4 children are at risk of poverty or social exclusion – pointing to growing inequalities. The document calls for the Union to develop a new long-term, post-2020 strategy to enable it to become the world’s most competitive and socially inclusive, climate neutral economy, reflecting the Economy of Wellbeing.

The Conclusions invite the Member States to strengthen knowledge-based policy and decision-making and to consider using indicators related to wellbeing monitoring, while promoting policies and reforms which would deliver on the European Pillar of Social Rights. Most notably however, amongst the many proposed actions, they also invite the Member States and the European Commissions to include an Economy of Wellbeing perspective horizontally into national and Union policies and to put people and their wellbeing at the centre of policy design, referring to the need to work this into the European Semester and to improve rigorous data collections to aid this.

Since then, the EU Member States welcomed in the Porto Declaration in May 2021 proposals for an alternative set of indicators to measure economic, social and environmental progress, supplementing GDP as a welfare measure. Furthermore, the Council is not the only EU institution which has endorsed such a shift: in July 2021, the European Parliament’s position on the 8th Environment Action Programme (8th EAP)¹¹ called for the EU to become ‘a sustainable wellbeing economy within planetary boundaries’ and importantly, associated actions to enable this shift, by calling for the European Commission to deliver an overarching framework to measure progress beyond GDP, after reviewing existing EU monitoring and indicator sets that measure social, economic and environmental progress. However, discussions with the Council of the EU and the European Commission are still ongoing to finalize the 8th EAP. It will only be known in December 2021 whether all three EU institutions agree to these actions.

CAVEATS

The Wellbeing Economy has not yet materialized in the EU, in spite of the good intentions outlined in the document. The EU is currently reviewing its fiscal policy framework.

WWF European Policy Office published a report in September 2020 ‘towards an EU wellbeing economy’¹². This set out how the EU can move from a system in which economics determine public interests to the inverse: where public interests determine economics. In this report, WWF recommends using the UN 2030 Agenda and its 17 Sustainable Development Goals (SDGs) to provide an integrated and, comprehensive and universal framework to achieve a Wellbeing Economy. Specifically, it recommends having an EU framework for measuring progress and wellbeing in the EU to guide policymaking, with alternative indicators based on the SDGs that complement and correct GDP, as well as the introduction of a ‘think sustainability first’ principle for all new legislation and policies.

¹¹ [Amendments adopted by the European Parliament on 8 July 2021 on the proposal for a decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2030](#)

¹² https://wwfeu.awsassets.panda.org/downloads/wwf_eu_wellbeing_economy_report.pdf



BIODIVERSITY AND CONSERVATION

Protecting biodiversity, ecosystems and natural resources is the bedrock of the wellbeing of society and therefore an essential component of a just energy transformation

The energy transformation will only be just if the needs of everyone are fulfilled and their rights and values respected. In turn, the needs and means to uphold the rights and values of all people are grounded in nature and the natural resources it offers. WWF wants to see energy transitions that:

- Do not significantly harm natural resources, biodiversity and ecosystems
- Unlock synergies between energy investments and nature protection through:
 - A whole of government approach which systematically integrates environmental and social concerns into energy investment planning
 - Action that directly aligns conservation goals with social and economic objectives, to stimulate nature positive action
 - Inclusive, transparent and clearly-defined participatory processes for decision-making which ensure that the rights, needs and values, as well as the knowledge of local and indigenous communities, are integrated into energy transitions decisions and investments
- International climate finance and support should be directed to low carbon, low-cost and low conflict projects, but also to developing and boosting the capacity of governments to map priorities and implement system-scale planning of the energy transition, in order to avoid trade-offs between energy and environmental goals.

See calls to action on the “A Brighter Future” microsite and in the “Connected and Flowing” report for more detail on how energy transitions can be simultaneously low carbon, low-cost and low conflict.

Biodiversity and natural resources are the foundations of wellbeing. According to the World Economic Forum, over half of the world’s GDP (\$44 billion) is moderately or highly dependent on nature and its services¹³. These services include pollination of crops, improving water quality and limiting the spread and emergence of diseases.

At the local level, biodiverse and functioning ecosystems are the bedrock of community livelihoods and cultures. Migratory fish, like the numerous species in the Mekong River, or the dorado catfish which travels 5000 km up the free-flowing Amazon River to the Andean headwaters to spawn, provide food and livelihoods for many people. In the Amazon, such migratory fish constitute a vital component of food security: it is estimated that 70% of the protein in the diets of riverside and indigenous people of the Amazon Basin come from them. Likewise, pollinators are in decline globally, threatening up to 75% of food crop production.

Biodiverse and healthy, functioning ecosystems are also one of our best tools for resilience against the impacts of climate change. Free flowing rivers deliver sediment to deltas, helping to keep these agriculturally-rich landscapes, which are home to hundreds of millions of people, above rising sea levels. Connected floodplains can reduce the impact of extreme floods, mangroves can help defend coasts against storm surges, and healthy wetlands can mitigate the impact of droughts, while also providing crucial buffers against the growing risk of forest fires, which can destroy entire towns and villages, as well as forests themselves. As climate change forces changes in the range of species, biodiversity can act as a buffer against the collapse of ecosystems by boosting their resilience and can provide an insurance against the spread of new diseases both by limiting them and by providing a resource to combat new threats.

¹³ World Economic Forum in collaboration with PwC “Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy”, January 2020. Available at: https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

Protecting nature by promoting biodiversity and healthy ecosystems is vital to secure the wellbeing of current and future generations. Without these resources, the ability of future generations to meet their needs, even more so in the context of a growing population, will be compromised.

But many approaches to energy investment pit the development of renewable energy against goals to protect nature and biodiversity. Hydropower plants are a significant contributor to habitat loss and ecosystem destruction worldwide. Fragmentation of rivers by hydropower is one of the main drivers of the drastic decline in freshwater biodiversity - an estimated 84% fall in freshwater species populations on average since 1970. Just over one-third of the world's 242 longest rivers remain free-flowing but many of these are now under threat from high impact hydropower: 260,000 km of free-flowing rivers are at risk from planned hydropower dams, including the Okavango, Amazon, and Irrawaddy in Myanmar. Yet these proposed dams would collectively generate less than 2% of the renewable energy needed to meet climate targets.

Wind power in contrast offers tremendous low carbon, low-cost and low conflict renewable energy potential. However, even wind must be planned sensitively: it is well-reported that if sited in the wrong places, it could conflict with migratory bird species.

Governments are striving to meet renewable energy targets quickly while remaining rooted into existing systems thinking. Many commentators raise the issue of the need for rare earth metals to support an increased use of batteries in an ever more electrified system, particularly for transport. These mines could uproot communities, depriving them of agricultural land and contaminated soils. Deep sea mining also threatens pristine ecosystems.

But the tools exist to avoid the conflict between nature, energy and development. Wind and solar power especially, situated in the right places, can for the first time provide a real, low-conflict and cost-effective alternative to hydropower for renewable energy. Indeed, there is capacity to link the establishment of these renewable resources with nature-positive outcomes such as natural restoration and integrated agriculture to optimize the returns. Systemic mapping approaches suggest over three times as much renewable energy can be accessed on low conflict sites as is needed to achieve IEA's projections for a power system consistent with the 1.5°C climate target.

Many models are now emerging for transparent and inclusive decision-making, bringing local stakeholders to the table in designing local-level transitions, embedded in wider-systems level strategies. Such models and best practices show that we can identify and integrate local needs, rights and values, as well as knowledge, effectively into system change. For example, the EU's Just Transition Mechanism provides a framework for developing local level just transition plans and demands respect for a code of conduct on partnership in their design, monitoring and implementation¹⁴.

The possibility to employ such tools however can be hindered by a lack of a systemic planning approach, sometimes due to capacity issues. It is therefore important that attention is paid to boosting capacity and, for international climate finance, providing the necessary incentives and support to develop these approaches, in addition to supporting projects which uphold both energy and nature targets.

Only by using resources within their ecological-ceilings, in ways that meet all people's essential needs, can we have a truly sustainable and balanced system in which the costs and benefits of the transition are equitably shared, and can we have the best chance of securing a decent life for everyone. Not only is protecting nature essential to climate adaptation and protecting existing livelihoods and industries, estimates suggest that transitions towards nature-positive economies will present an annual business opportunity of \$4.5 trillion by 2030 . Pitting the development of renewable energy against nature will be counterproductive for achieving the sustainable development goals.

A just energy transformation would mean that energy transition solutions protect natural resources, rather than damage, deplete or harm them, and as far as possible even boost natural resources and increase their resilience. International climate finance, governments and investors must therefore avoid a false dichotomy between nature and energy, directly aligning conservation goals with social and economic objectives, including energy transition, to stimulate nature positive action .

The following case stories contribute to illustrating what is meant by biodiversity and conservation as an enabler of just energy transformation.

¹⁴ EU just Transition Mechanism. Further information available at: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

TITLE:
SUSTAINABLE ALTERNATIVES TO
HYDROPOWER DAM IN ZAMBIA

WHAT WE WANT TO SEE:
COMMUNITIES AFFECTED AND ENDING OF PROJECTS WHICH
WOULD UNDERMINE NATURE, LOCAL WELLBEING AND
LIVELIHOODS AND EXPLOITATION OF SUSTAINABLE ALTERNATIVES

WHERE: LUANGWA RIVER, ZAMBIA

WHEN: 2019 - PRESENT

WHAT HAPPENED?

A hydropower dam was proposed for the Luangwa River in Zambia, one of only a few remaining long free-flowing rivers in Southern Africa. About 25 chiefdoms are in the entire catchment of the Luangwa River and rely on the river for water, food, and livelihoods. The economy of the valley, based primarily on tourism and agriculture, also relies on the river. The region is an important contributor to the nation's economy as a tourism hub and the proposed dam would have created a reservoir that flooded parts of one of Zambia's most popular and important national parks, the South Luangwa National Park, which was the first to be declared as a sustainable wildlife park in the world by United National World Tourism Organization (UNWTO). The river supports an abundance of megafauna, including Zambia's reintroduced black rhinos, elephants, hippos, leopards, lions, and the endemic Thornicroft's giraffe.

WWF secured hundreds of thousands of signatures on a petition urging that the dam be cancelled. In the summer of 2019, the Zambian government halted the proposed dam. Subsequently, the government has been exploring other options for generating the needed electricity in more sustainable ways. For example, floating solar photovoltaics to be placed on the surface of the reservoir at Kariba Dam are now at the pre-feasibility study stage. Off-grid solutions in rural areas (which have the lowest access to electricity of less than 5%) are also being promoted to support solar photovoltaics for agriculture, food processing, and fish farming, etc., that will create economic alternatives to also curb the practice of cutting trees for charcoal that's leading to high deforestation rates.

The government is also beginning the process of developing an integrated resource plan for the country and is considering a range of options for energy development. WWF-Zambia also recently completed an assessment that examines several scenarios of hydropower development and calculates their hydro-environmental impacts. The results of these scenarios show the required trade-offs to achieve desirable energy production and minimize negative environmental impacts and can support decisions that lessen impacts.

¹⁵ The Food and Land Use Coalition FOLU. "Growing Better: Ten Critical Transitions to Transform Food and Land Use." 2019.

¹⁶ Nature-positive by 2030: this means we have more nature than we do now, through improvements in the health, abundance, diversity and resilience of species, populations and ecosystems.



TITLE:
**DAMS ON THE TAPAJOS
FREE-FLOWING RIVER**

WHAT WE DON'T WANT:
**ENERGY NEEDS PITTED AGAINST SOCIAL AND ENVIRONMENTAL
NEEDS**

WHERE: BRAZIL

WHEN: ONGOING

The 2,000 km long Tapajós River in Brazil is one of the largest, free flowing tributaries of the Amazon. A fast, clearwater river, the Tapajos sustains diverse communities as well as extraordinarily rich biodiversity. Thousands of plant and animal species rely on the river, including river dolphins, giant otters, jaguars and at least 325 freshwater fishes. Indigenous people and local communities also depend on the Tapajos to support their fisheries, fertilize their fields, provide clean water, and sustain their livelihoods and cultures. But all this is under threat since the river is regarded as one of the best remaining opportunities for hydropower generation.

A total of 42 dams are currently planned in the Tapajos basin. If all these dams were built, the environmental and social consequences would be disastrous. An estimated 2,000km² of Indigenous territories would be flooded by reservoirs. The dams would alter the river's natural flow of water and sediments, which would destroy the delicate ecosystems that the river currently supports. Community fisheries would also disappear as fish migration routes were cut, and floodplain fertility would fall.

The planned high-impact hydropower dams are also based on out-dated forecasts, which do not take into account increasing energy efficiency and the plunging price of wind and solar. Nor do they properly factor in the impact on the diverse benefits that a healthy, free flowing Tapajos provides to people and nature. One study even found that the carbon and methane emissions from the construction of the dams and from their reservoirs would generate greenhouse gas emissions comparable to natural gas plants, with the worst of the five dams producing total emissions that would exceed a coal-fired power station.

Unsurprisingly, opposition to the dams has been immense. The indigenous Munduruku tribe has fought tirelessly to protect their lands, and court battles have been raging for years. There were encouraging signs in 2016 when the environmental licence for the largest proposed dam at São Luiz do Tapajós was cancelled. But dams often come back from the dead and there are still many more on the drawing board.



TITLE:
DELTA IN DANGER

WHAT WE DON'T WANT:
CLIMATE-VULNERABLE INVESTMENTS WHICH JEOPARDISE PEOPLE AND NATURE; ESPECIALLY WHEN ALTERNATIVES EXIST

WHERE: KAVANGO, ANGOLA

WHEN: PRESENT

Botswana's Okavango Delta is the largest inland delta in the world. It is formed where the waters of the Kavango River flow into the flat basin of the Kalahari Desert - creating a dynamic wilderness unlike anything else on Earth. The delta's gloriously beautiful floodplains are rich in biodiversity from fish to birds and some of the most endangered large mammals in the world.

A thriving nature-based tourism industry is key to the local and national economy, while freshwater fishes provide food and livelihoods for local communities, who rely on the natural resources of this unique ecosystem.

But the river that feeds the Okavango Delta is at risk, threatening the future of this unique ecosystem and the people and nature it sustains. The largest threat is a proposed hydropower dam at Mucundi in Angola, which would fragment the river, disrupting the natural flow of water, sediments and nutrients that keeps the delta dynamic and healthy. Damming the free flowing Kavango would irreversibly alter the delta, which is already under pressure from the growing demand for water for agriculture upstream. Meanwhile, climate change is set to make things worse with an increase in temperature of up to 3°C projected for the region, which would disrupt rainfall patterns and put extra strain on communities and wildlife.

A healthy Kavango would enable both people and nature to adapt, a dammed river would further undermine the region's resilience. And there are alternatives. Investments in other renewables, such as solar and wind, promise a faster path to much-needed power generation and much lower impact on the river, communities, wildlife and the delta. Sustainable development of the region is possible but only by safeguarding the river that flows through the heart of it.

Instead of sacrificing the river's diverse benefits to fuel a hydropower dam, it would be better to choose lower impact renewables and protect the health of the Kavango so it can power a better long term future for people and nature.



TITLE:
MODELLING HIGH CONSERVATION
VALUE RIVERS FOR THE ENERGY
OPTIONS ASSESSMENT IN NEPAL

WHAT WE WANT TO SEE:
SYSTEMIC MAPPING OF ENERGY TRANSITION INVESTMENTS IN THE
CONTEXT OF MULTIPLE, INTEGRATED GOALS

WHERE: NEPAL

WHEN: 2021

Hydropower is a leading driver of the fragmentation of rivers and the decline in freshwater biodiversity. Yet hydropower projects are generally evaluated only at the scale of single dams and this evaluation often only occurs once the project is largely moving forward, greatly limiting the ability to avoid, minimize or mitigate impacts on rivers.

For years, conservation organizations have emphasized the potential for better outcomes, which meet energy needs while protecting more rivers, based on early and comprehensive planning at the system scale – an approach supported by the USAID PAANI program in Nepal.

The work identified High Conservation Value Rivers (HCVR) based on their values to people and nature, assessed different pathways for meeting the country’s future electricity demand, developed a system-scale planning decision support tool, and analyzed how these three components could inform planning and decision making. The HCV assessment found that close to 62% of Nepal’s rivers are classified as HCVR Type 1, meaning that they have at least one conservation value, and are both free-flowing and of high water quality.

Using modelling, the Energy Options Assessment compared the system costs of policies that would shift more investment toward other renewable technologies, such as wind and solar, as well as of policies that protected certain rivers. For example, policies that protected the main stem Karnali river and its major tributaries from hydropower development would increase Nepal’s electricity system costs by only 1%. Avoiding dams in protected areas and on all free-flowing rivers across the country would increase system costs by 2% and 9%, respectively. Finally, the system scale planning (SSP) component quantified the inevitable tradeoffs between different pathways and potential projects - providing decision makers with the pros and cons of different development options.

Collectively, these three components reveal that Nepal has globally significant rivers that provide considerable value to local communities and the country overall – and that Nepal has a great opportunity to design its future power system in a way that meets demand for low costs, with low carbon emissions, and that is consistent with protecting its high-value rivers. Nepal has a number of opportunities to begin incorporating insights from this work into decisions about ongoing energy and hydropower planning processes at the system scale, as well as about individual dams. International financial institutions will also be able to use this information to influence which projects they prioritize. Critically, the reality that significant conservation of rivers will have negligible impacts on system costs should make it far easier to make decisions to protect key rivers for their diverse cultural, recreation and environmental values.

More information is available at: http://fwcoe.cdes.edu.np/ssp_tool/#component-section



TITLE:
WELLINGTON, BIOPHILIC CITY

WHAT WE WANT TO SEE:
PROTECT AND RESTORE OUR INDIGENOUS BIODIVERSITY
AS A NATURE-BASED SOLUTION TO CLIMATE MITIGATION
AND ADAPTATION.

WHERE: WELLINGTON, NEW ZEALAND

WHEN: BIOPHILIC CITIES PARTNER CITY SINCE 2013

WHAT DOES THIS CASE STORY SHOW?

Demonstrating how efforts to restore biodiversity can be promoted and pioneered at the local level; Biophilic Cities facilitate a global network of partner cities working collectively to pursue the vision of a 'natureful' city within their unique and diverse environments and cultures.

In the city's Our Living City plan, they have outlined three goals to remain a liveable and biophilic city. The first goal is to grow and enjoy Wellington's natural indigenous capital, especially in the areas of urban design, land use, open space management, and water. The second goal is to transform their economy and reduce their impact on the environment. The final goal is to show leadership, through encouraging community actions and establishing partnerships.

Wellington is now bringing native bush back to the city by planting two million trees in the city. With the help of their community partners, they estimate that 1.8 million trees have been planted in the last decade.

More information is available at: <https://www.biophiliccities.org/wellington>



DELIVERING JUST ENERGY TRANSFORMATION THROUGH INTERNATIONAL COOPERATION AND FINANCE

International cooperation and finance can support climate justice in the pursuit of wider just energy transformation

We need to stand shoulder to shoulder internationally, as well as intergenerationally, recognising that climate action could perpetuate existing injustices as well as create new ones. WWF wants to see a cooperative approach between countries and other actors, embodied by:

- International solidarity to facilitate the energy transitions globally through:
 - Adequate financial commitments to support energy transition projects and governance, meeting and going further than the \$100 billion international climate finance commitment to developing countries, scaling up support for both adaptation and mitigation.
 - In addition, the Parties to the Paris Agreement must establish a carbon pricing mechanism that guarantees fast, verifiable action towards green and just development. The International Monetary Fund suggests this should also include a global minimum floor - at least for large emitting countries
 - Agreement on and commitment to a phase out date for fossil fuels globally
 - Financial and technical support for just transition from wealthy to poorer countries:
 - Capacity building networks and technical assistance for the national to the local level.
 - Fairer trade agreements that enable the transfer of sustainable energy technologies
 - Dedicated, reliable and long-term financial flows to support just transitions on the ground
- The definition and implementation of standard practice on polluter pays and transparency of information about revenues from environmental taxes and polluting activities, to encourage responsible private sector behaviour, as well as transparent, fair and effective use of revenues for just energy transformation.
- The establishment of cooperative structures to facilitate:
 - Best practice sharing on just transitions in all sectors, including from fossil fuels to clean and sustainable renewables.
 - Dialogue on the challenges that arise from energy transition decisions, including through interlinkages between transitions locally, internationally and intergenerationally. Only by taking such a holistic approach can we enable a just energy transformation.
 - The elaboration of standards for just energy transitions and the overall just energy transformation to inform the inclusive and transparent development and implementation of place-based, just energy transition strategies at national, subnational, local and company level that support the achievement of the SDGs.

We take note of initiatives such as the World Economic Forum's Just and Urgent Energy Transitions Principles as guidelines for the private and financial sector to support just transitions contributing to a just energy transformation. International financial institutions should rapidly align their portfolio with a 1.5°C climate scenario with no or limited overshoot, starting with immediately ending support to fossil fuels, in addition to incorporating the use of science-based sustainable taxonomies to guide their investment decisions.

¹⁷ Parry, Ian, Simon Black, and James Roaf. 2021. "Proposal for an International Carbon Price Floor among Large Emitters." IMF Staff Climate Notes 2021/001, International Monetary Fund, Washington, DC.

In 2020, the world faced a crisis. COVID-19 ravaged populations, with each person infected providing a new opportunity for mutations which could undermine efforts to combat the virus by the development of vaccines and other treatments. The world responded by closing borders to stop the spread, but also by shutting down mutual support mechanisms. Vaccines were hoarded by richer countries, with only small schemes later proffered to share some vaccines bought up early on. Still, in September 2021, it is estimated that only 2% of people in low-income countries have had their first dose .

The way the world has responded to that crisis can teach much about how to tackle the even greater threat posed by climate change. A competitive approach to global challenges pushes us into the worst territory of the prisoner's dilemma: by failing to cooperate to fight the virus, we will all lose out as the virus can mutate and cause yet further pandemic outbreaks. The same is true for tackling climate change and delivering a just energy transformation. We can focus on our national interests, sourcing raw materials irresponsibly and hoarding the technology to maintain competitive advantage, while triggering environmental and social disasters in other countries or making it impossible for poor countries to afford to adopt renewable energy.

Following a competitive approach, large and wealthy countries like the US are discussing domestic budgets in the trillions, while struggling to ramp up overseas climate finance to a few tens of billions of dollars. Not only is this a suboptimal and even - in longer-run - a disadvantageous strategy, it directly contradicts a foundation of climate justice, common but differentiated responsibilities and respective capabilities (CBDRRC). While every country and every region must reach climate neutrality in line with keeping global average temperature rise below 1.5°C, the costs of delivering that transition should be borne mostly by those countries that have done the most to cause the climate crisis, and adequate financial and technological support must be given to developing countries to enable them to follow a low-carbon path to development.

Wealthier and developed countries have a responsibility and an interest to drive a just energy transformation by providing adequate and timely financial and technical support to developing countries to deliver clean and just energy transitions. Yet all too often, they choose a competitive approach, prioritizing short-term domestic economic growth. When support is given, it is channelled either for development assistance or climate finance, following the logic of a false dichotomy between the two goals.

Energy investments, especially in developing countries, are viewed through the lens of driving economic development. Aside from economic growth failing to be a perfect proxy for quality of life, viewing energy transition investments separately from actions which improve the environment and tackle climate change can result in conflict between them. This leads to the paradox in which renewable energy and other climate action investments are supported by a small and dedicated proportion of budgets, while an often larger proportion is funnelled into new fossil fuel infrastructure.

\$100 billion a year should support the Green Climate Fund. In turn, this should invest \$50 billion a year in mitigation action, like renewable energy and energy efficiency investments, as well as increasing carbon sinks. Yet the IEA estimates that in 2020 alone, subsidies to fossil fuels used just to produce electricity totalled over \$50 billion in 2020. This ignores that overall fossil fuel subsidies amounted to over \$180 billion .

The pursuit of economic growth, or even energy access, through energy investment that is blind to environmental goals will be counterproductive. An extreme weather event, such as a prolonged drought, a wildfire or a large storm, can reverse the developmental gains delivered by environmentally-insensitive energy investments. Not only do investments in new fossil infrastructure, such as coal and gas plants, exacerbate climate change, increasing the likelihood of extreme weather events, driving sea level rise and increasing economic and human losses in the longer run; extreme weather events themselves can undermine such investments.

In order to deliver sustainably on both environmental and social goals, energy investments should be as resilient as possible. This means they must be resilient to climate change. Heatwaves in Europe in 2019 and 2020 have demonstrated how coal, nuclear and gas plants can fail resilience tests, needing to be switched off during these events.

¹⁸ According to data from the University of Oxford, World Health Organisation and UNDP Global Dashboard for Vaccine Equity. Available here: <https://data.undp.org/vaccine-equity/>

Likewise, the winter of 2020/2021 saw many gas plants go offline in North America due to the unprecedented extreme cold period. The same problems from lack of resilience can be expected as extreme heat and drought become more common in a hotter world wherever such fossil infrastructures are built.

Climate risks also face some renewable investments, such as hydropower plants. In New Zealand, over 82% of electricity is powered by renewable energy. However, high electricity prices have hit many people hard as demand for water has increased and caused low water levels in the hydro dams, resulting in higher spot prices. At the same time, hydropower is associated with the destruction of freshwater ecosystems, on which many communities can rely for their livelihoods. All energy investment must be developed sensitively, ensuring both resilience to climate change and the protection of the rights and needs of communities.

To be resilient, energy transition investments must also be accompanied by investment in institutions. This should ensure energy transition investments are resilient to political risks, as well as sitting in a holistic and adaptive framework that can respond to changing environmental and human needs.

Complex delivery processes for investments to reach the ground often cause great delay in action. These complexities are often driven by the need for transparency and accountability, but the processes are stacked against the poor countries in dire need to access adequate and timely financing. There is a need to hold intermediaries between International Financial Institutions (IFIs) and beneficiaries more accountable for delivery of action.

A holistic and cooperative approach, in line with just energy transformation, is a prerequisite to eliminating any conflict between development and climate finance. International climate finance must not support fossil fuels and should deliver investments in environmentally-sensitive renewables that are both resistant to climate change and respond to local rights, needs and values.

In practice, this means adequately resourcing and implementing a holistic, rights-based approach to international climate and development finance. This approach should empower those on the front line of the energy transition to design a climate-safe energy future which does not exacerbate inequalities or create new injustices, and which can even reduce them. Climate policies and energy investment decisions should be developed and implemented in meaningful partnership

with those who are most affected by them. International climate finance frameworks should promote these open and inclusive partnership models.

Likewise, international financial institutions should rapidly align their portfolio with a 1.5°C climate scenario with no or limited overshoot, starting with immediately ending support to fossil fuels, in addition to incorporating the use of science-based sustainable taxonomies to guide their investment decisions. This should ensure that climate change is integrated into the strategy of International Financial Institutions.

A just energy transformation will improve clean and affordable access for all, while avoiding disproportionate burdens on anyone group, including future generations. All efforts should be taken to ensure vulnerable groups are enabled and occupy a seat at the table, and in the event that such groups cannot be represented at the table when designing energy transitions, their rights and choices need to be protected through appropriate mechanisms and safeguards which can ensure the long-term sustainability of investment decisions.

A just energy transformation requires the needs, rights and values of communities everywhere to be respected while the energy transition takes place. To enable the fair sharing of costs and respect fundamental and human rights, polluters must pay for the damage they cause to ecosystems, natural resources and the general environment. This principle, known as ‘polluter pays’, is an internationally accepted norm, and is enshrined in many jurisdictions as a principle in national law. In practice, it is not always upheld due to complexities of attributing responsibility and due to weak legislative frameworks.

The international community must tax fossil fuel companies and use the revenue generated to repair the environmental damage their operations cause. There is also a need to develop effective reporting and transparency frameworks to track revenues from polluting activities, as well as to quantify and avoid the externalization of environmental costs. Initiatives such as the Extractive Industries Transparency Initiative (EITI) have gone some way to boosting transparency and good governance, but further steps are needed to strengthen the approach and ensure that revenues are recycled effectively for just energy transformation.

A fair framework of accountability for past and existing damage, as well as for ensuring fair accountability in future, must be built into strategies for just energy transformation. Good practices for regulating polluting

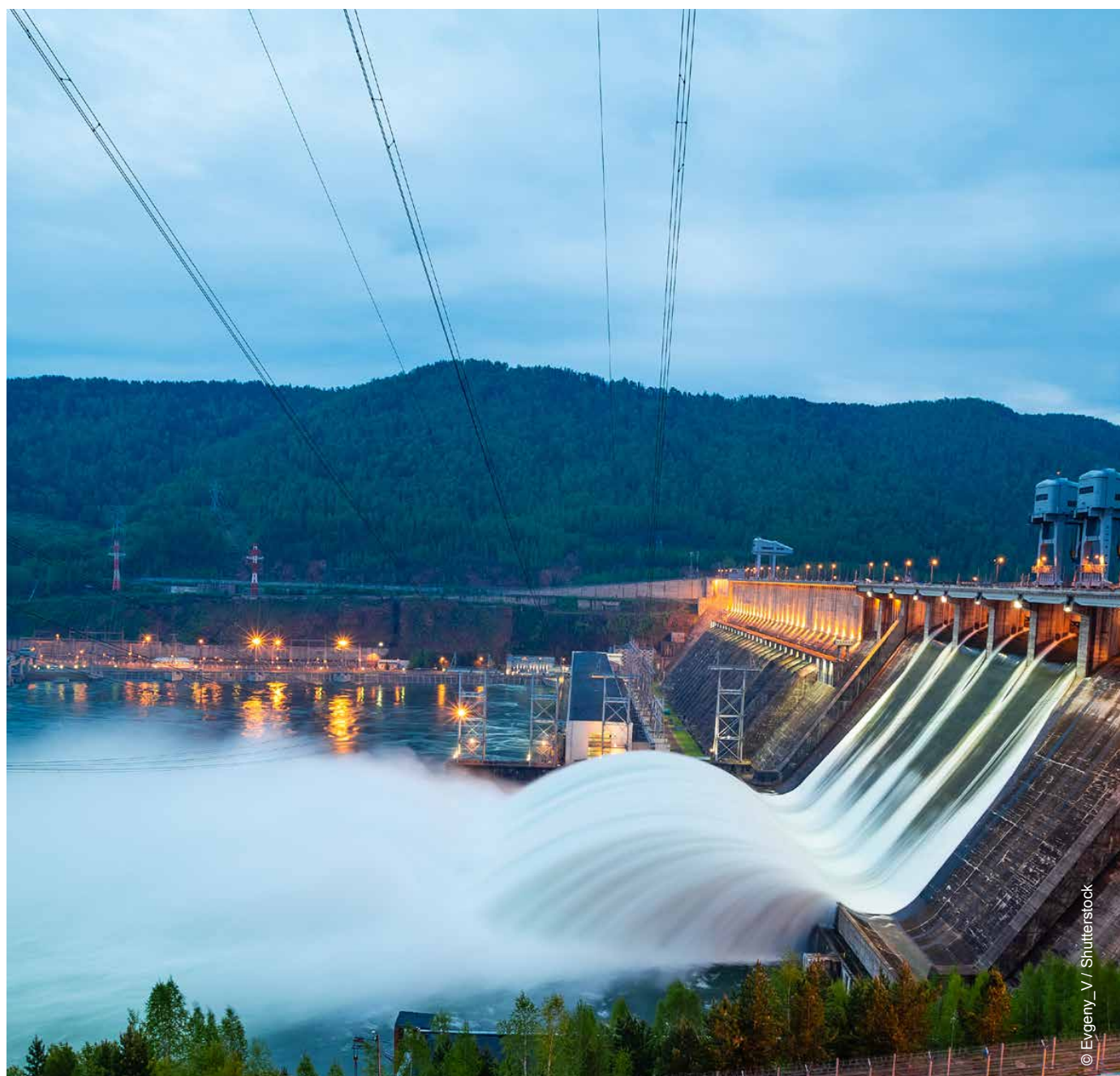
¹⁹ IEA Fossil Fuel Subsidies Database. Available at: <https://www.iea.org/data-and-statistics/data-product/fossil-fuel-subsidies-database>

²⁰ For example, "https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en"

activities and minimizing the harm they cause should be shared and implemented. For example, an investor in a battery electric plant, or an operator of a new lithium mine, should be regulated from the start of operations so that they can and will take responsibility for any environmental harm their operations might cause. Meanwhile, a historical polluter such as a coal mining utility should bear the costs of remediating the site and restoring the natural resources of the community - enabling the community to move forward to a sustainable and prosperous future.

Existing frameworks such as the Katowice Committee of Experts Forum on the Impacts of the Implementation of Response Measures (KCI) can provide a platform within

which to facilitate effective dialogue between countries on the impacts of investment decisions and energy policies in some countries on the development, energy choices and wellbeing of other countries. Such fora can provide not only an important practice sharing and learning opportunity, but also a space to raise issues and develop joint solutions and approaches resulting from the interlinkages between transitions decisions locally, internationally, and intergenerationally. We also recall our September 20 recommendation for the KCI to study response measures linkages with SDGs, particularly in the context of Just Transition.



WWF submission to the Call for Inputs by the Katowice Committee of Experts Forum on the Impacts of the Implementation of Response Measures (KCI); September 2020 Available here: <https://unfccc.int/sites/default/files/resource/KCI%203-inputs-WWF-2.pdf>

Case stories illustrating how international cooperation and finance can both enable and impede just energy transformation are included below.

TITLE: EU CARBON BORDER ADJUSTMENT MECHANISM	WHAT WE DON'T WANT: A COMPETITIVE APPROACH TO ENERGY AND INDUSTRIAL TRANSITION AND CLIMATE ACTION TO DELIVERING JUST ENERGY TRANSFORMATION
WHERE: EUROPE	WHEN: 2021

The European Commission updated its 2030 emission reduction target to at least a 55% reduction in greenhouse gas emission versus 1990 levels by 2030 in the EU Climate Law. This required an update to climate and energy legislation, so in July 2021, the European Commission proposed the fit for 55 legislative package, including a proposal for a Carbon Border Adjustment Mechanism (CBAM).

The CBAM will place a levy on imported goods entering from outside the EU such that an equivalent of the carbon price paid by producers in the EU for the same goods is also paid by the importers. It aims to reduce the risk of 'carbon leakage' whereby producers attempt to avoid the application of the carbon price levied in the EU via the Emissions Trading System (ETS) by producing goods in third countries and exporting them to the EU. It will initially only apply to goods identified as at high risk of carbon leakage: iron and steel, cement, fertiliser, aluminium and electricity generation.

Importers will need to either buy carbon certificates corresponding to the carbon price that would have been paid, had the goods been produced under the EU's carbon pricing rules, or prove that they have already paid an equivalent price for the carbon used in the production of the imported goods in a third country (the corresponding cost can be deducted from the CBAM levy).

The proposal states that the CBAM will only begin to apply to products gradually and in direct proportion to the reduction of free allowances under the ETS as of 2026, with a full phase out of free allowances only 10 years later. However, many industry lobbies and Member States are pushing for a simultaneous existence of the CBAM and free allowances – meaning that EU industries would have an advantage over importers.

There are some equity and climate justice issues raised by the proposal for a CBAM:

1. There is a risk that smaller producers in third countries are disproportionately disadvantaged by the administrative burdens, a challenge likely to be greater for those based in poorer countries where support may be less available.
2. EU Member States are pushing for the continuation of free allocation alongside the CBAM, in effect subsidizing EU industries while also reducing the incentive for EU industries to reduce their emissions. Keeping free allocation any longer - or removing them over 10 years - is too slow and would delay decarbonization investments. No exception to the polluter pays principle means that CBAM must be designed as a complement to end free allocation.
3. The revenues from a CBAM will be directed back to the EU budget, rather than being recycled to assist third countries to decarbonize their industries through international climate finance. The European Commission only indicates that dialogue with third countries will continue in multilateral fora and bilateral relations to support low and middle income countries towards the decarbonization of their manufacturing industries, including through "the necessary technical assistance".

The third issue is particularly problematic as it contrasts with the proposed use of revenue from the internal EU emissions trading system, which must be 100% recycled for climate action.

TITLE:
**DANISH SUPPORT FOR MYANMAR'S
ENERGY TRANSITION**

WHAT WE WANT TO SEE:
A COOPERATIVE APPROACH TO ENERGY TRANSITION INVESTMENT

WHERE: MYANMAR

WHEN: 2018 - 2020

In a good example of positive international climate cooperation and support, Denmark's support as a developed country to Myanmar has gone beyond financing individual energy transition projects and has sought to build long-term capacity to implement the energy transition in this developing country.

After the releasing the first scientific study on renewable energy vision of Myanmar in 2016, the Danish Embassy of Myanmar, Energinet DK, WWF and Myanmar Ministry of Electricity and Energy developed a project to provide technical support to Burmese officials for renewable energy deployment. The two year-long "Twinning Project" transferred knowledge between Danish and Burmese experts on transmission and operation control for renewable energy integration into Myanmar's grid.

More than 30 engineers and economists participated to control, operate the variable power into the grid and discussed the associated economic considerations. Six months after completion of the capacity building project, the Ministry of Electricity and Energy opened the tender for Myanmar's very first 1000MW, solar tender in 2020.

In this way, longer-term capacity was built and the government of Myanmar empowered to design and implement the transition in a more strategic way appropriate to the country than may have been achieved by single investment projects alone.

CAVEATS / FURTHER WORK NEEDED

In addition to the capacity needs, developing countries like Myanmar still need financial support from the developed countries or international financial institutions. Myanmar's first NDC outlined the needs of 1.209B USD to achieve its conditional target for the energy sector by 2030. However, barriers remain in particular around the availability of low-cost and low-risk finance for renewable projects, a challenge facing many developing countries.

Further information on this project can be found on the WWF Myanmar website.



TITLE:
**COOPERATION AND COMPETITION
TO END INTERNATIONAL
COAL FINANCE**

WHAT WE WANT TO SEE:
**A COOPERATIVE APPROACH TO DRIVING ENERGY TRANSITIONS IN
DEVELOPING COUNTRIES FOR A JUST ENERGY TRANSFORMATION**

WHERE: GLOBAL

WHEN: 2021

WHAT HAPPENED?

The UK government announced its decision to end international public support (including export finance) to fossil fuels (including fossil gas and crude oil, as well as coal) at the Climate Ambition Summit in December 2020. The shift, which should come into force before COP26, is stark: from 2016 to 2020, the UK government supported £21 billion in oil and gas exports through trade promotion and export finance.

The UK has now teamed up with other countries and the EU in the OECD to propose a ban on export credits for coal-fired power projects. In January 2021, the Council of the European Union called for a global phase-out of environmentally harmful fossil-fuel subsidies, including finance for new coal infrastructure in third countries and an end to unabated coal in January 2021. Denmark, France, Germany, the Netherlands, Spain, Sweden and the UK also announced the Export Finance for Future (E3F) coalition to end financing for unabated coal projects, but also to assess how to best phase out export finance support to oil and gas industries. The G7 announced that "international investments in unabated coal must stop now" in June 2021. Together, these countries are now pushing for an agreement, potentially under the framework of the arrangement on officially supported export credits, to end such export credits and so cut off the life support to environmentally and socially harmful coal.

The increasing international pressure and announcements have culminated in the widely welcomed September 2021 statement that China would also end international coal finance and instead ramp up support for renewable energy projects.

CAVEATS

While these moves by actors such as the G7 and China are encouraging, to truly reflect the urgency of the climate crisis and enable implementation, a clear end date for coal support from China, Japan and South Korea, as well as for ending support for all other fossil fuels by G7 is required.

The statement by China also lacks essential detail on how it affects projects already in the pipeline. To be consistent with the urgency needed, these projects should also be covered by the statement.

There is no agreement yet on ending support to all other fossil fuels, which are also driving climate change and extractive activities.



VEHICLES AND PRINCIPLES FOR DELIVERING JUST ENERGY TRANSFORMATION

CLIMATE JUSTICE AND BUILDING ADAPTATION AND RESILIENCE

Climate justice is a central principle guiding a just energy transformation.

Climate justice means that the burdens of climate change, as well as the costs of avoiding it, are shared fairly; both internationally and intergenerationally. It also means that climate action upholds fundamental rights, and respects the needs and values of all people.

For a just energy transformation, WWF expects to see:

- International solidarity and burden sharing, ensuring that the burden of investing in the global energy transformation needed to limit temperature rise to 1.5°C for the benefit of all, does not fall disproportionately on those least able to pay for it.
- Intergenerational solidarity, ensuring that the impacts of energy transitions and climate change do not limit the ability of future generations to meet their needs, nor do they sacrifice the needs of the present. To do this:
 - Climate and energy policies should be developed in consultation with the youth as well as with the elderly.
 - Appropriate discount rates should be applied to infrastructure decisions that can ensure the ability to fulfil the needs of future generations are not compromised by the decisions of today. This means avoiding energy investment decisions that present ‘false solutions’, shifting the burden of action onto future generations, or compromising their ability to enjoy natural resources.
- Respect for the rights, needs and values of all as a common principle in the implementation of energy transitions, embedded in appropriate frameworks, policies and norms: this means ensuring transparent and inclusive access to decision-making, information and justice in energy policy and investment decisions.

Climate justice is a broad topic, referring to the fundamental need for equity when addressing and dealing with climate change. It is grounded on the key principle of common but differentiated responsibilities, which reflects historical responsibility for - and current capacity to address - climate change²¹. This means that while all must support the transition to a system compatible with limiting temperature rise to 1.5°C, the international community must show solidarity to

support poorer countries, groups and those with the least capacity to engage and adapt to act.

Climate justice also encompasses adaptation and resilience, as well as loss and damage. The World Economic Forum has identified extreme weather as the foremost global risk consistently since 2017²². Climate action failure is the second highest ranked global risk since 2019. Climate action and energy infrastructure

²¹ All countries have a common responsibility to tackle climate change, but we must recognize different capabilities and differing responsibilities of different countries, “...the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions.” United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107.

²² World Economic Forum, “The Global Risks report (2021)”. Available here: http://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf.

must therefore go hand in hand for climate-proof development: energy infrastructure must be resilient to future climate change impacts, while also serving to mitigate climate change. Failing to do so risks a lose-lose situation for all: reduced energy access, economic losses and many more negative socio-economic and environmental ramifications will result.

In the subsections below, we explore two agents of climate justice: access to justice, decision-making and information, as well as energy access that lie at the heart of a just energy transformation.

ACCESS TO JUSTICE, DECISION-MAKING AND INFORMATION

How access to justice, decision-making and information can support climate justice in the pursuit of wider just energy transformation

Access to justice is an essential component of climate justice, as it provides the means to uphold and enforce the rights of all people. Likewise, it is essential that decision-making on energy policy and investment is inclusive and transparent so that the values, needs and ideas of all those affected by the energy transition are heard. Finally, to enable everyone to engage effectively, there must also be transparent and comprehensive access to information about energy policy development and energy investments.

In this regard, WWF wants to see:

- A common approach to investment which upholds indigenous and local community rights.
- Recognition and implementation of the right to meaningful participation in energy transition decision-making processes for all stakeholders, acknowledging and compensating for differences in resources and capacity to engage.
- Judicial protection and access to legal procedures for citizens to bring cases and appeals against state or private actors where environmental and climate commitments, or rights linked to the state of the environment and climate, have been breached.

- Freedom of information and environmental legislation in countries of registration of parent companies of fossil fuel companies applied to their subsidiaries in countries of operation.

A just energy transformation requires that the rights, needs and values of all people are protected as the energy system changes. Failing to involve those affected by the energy system changes will mean we are blind to their needs, as well as their ideas for how to ensure the transitions are positive from both climate and societal perspectives. Time and again, we can draw on examples of how the rights, needs and values of some groups have been cast aside in the pursuit of blinkered policy goals such as energy security.

This has often been the case for extractive mining operations. For example, in Western Macedonia in Greece, the community enjoyed a historic specialization in agriculture, but from the 1950s onwards, coal mining was expanded in pursuit of energy production and economic growth. Entire villages have been abandoned following landslides caused by mining operations, such as Agioi Anargyroi. In the process, the agricultural land and the skills associated with it have been lost. Most employment is now in the mines and coal power plants, which will close by 2025²³.

Consulting with the local and indigenous communities can help avoid unforeseen negative impacts of policies and enable synergistic solutions to meet the needs and respect the rights of all. There should be no limitations (geographical or other) imposed on the participation of the public concerned in the elaboration of laws and policies on environmental and climate issues. Based on that premise, the hosting of open, widely accessible public consultation processes should become the norm. These processes, implemented at national and local levels, should respect de minimis requirements and ensure that participation of the public in such consultations is meaningful and substantial, rather than simply 'ticking a box' to meet an obligation.

In order to enable effective participation and engagement in decision-making, it is essential however to provide complete and open access to information. Without the data on environmental quality, plans for projects and existing operations, it is not possible for people to engage effectively in decision-making processes. At the same time, failing to provide such public access disadvantages the least resourced and most vulnerable the most, as they have the lowest possibility of accessing such information by other means.

²³ All mines and coal plants will close by 2023 in Greece, except the Ptolemaida V coal plant, which is currently under construction. It is scheduled to operate as a lignite plant until 2025, before being retrofitted to fossil gas.

Furthermore, judicial protection should be considered as one of the most critical guarantees of the rights of citizens to environmental and climate stability. To this end, the right of citizens to appeal to courts against any unlawful act or omission by state or private actors undermining nature or the climate should be

supported. Civilians willing to report cases of breaches of environmental and climate legislation should be protected as already applies under EU Law and most particularly in the wake of the transposition of Directive (EU) 2019/1937 (known as the Whistleblower Directive).



Case stories:

TITLE: GREEK STATE BLOCKED RIGHT TO CHALLENGE COAL POWER PLANT PERMITS FOR 15 YEARS	WHAT WE DON'T WANT: AN OPAQUE AND RESTRICTIVE APPROACH TO ENVIRONMENTAL INFORMATION AND JUSTICE WHICH IMPEDES ENERGY TRANSITION AND A JUST ENERGY TRANSFORMATION
WHERE: GREECE	WHEN: 2001 - PRESENT

For more than 15 years, Greek governments have used laws that directly granted, renewed and extended the permits of lignite-fired power plants owned by the national power company, Public Power Corporation's (PPC), bypassing the respective administrative public authorities. This has prevented any concerned member of the public from challenging permits that could allow PPC to pollute above legal limits and endanger public health.

By filing permits through legislative procedures instead of administrative ones, the Greek government had violated Article 9 of the Aarhus Convention, concerning "Access to Justice", as it prevented interested parties and members of the public from challenging the decisions to permit operation of PPC's power plants.

In 2001, the Greek parliament granted PPC a Single Provisional Operation Permit, covering all of its power plants. This operational permit is meant to ensure safe operation and efficient protection of employees and the environment, but as it was granted through legislative procedures, it has never been scrutinized. Under normal conditions, the Ministry for the Environment and Energy should have issued separate operation permits for each lignite plant.

Instead, this Single Provisional Operation Permit has been extended several times by the Greek parliament. The Greek parliament also passed a law in 2011 that extended the outdated environmental permits of each of PPC's coal plants. Because these extensions were granted through a legislative act, PPC's environmental permits have not yet been updated to reflect the EU's Industrial Emissions Directive requirements that came into force on 1 January 2016. The established administrative procedures that apply to other power producers should also apply to PPC instead of granting legislative permits that nobody can challenge.

As a result of these opaque procedures, Greek citizens are practically sidelined and stripped off their role as guardians of environmental protection, a core element in any functional democracy. They cannot protect their needs, rights or values effectively.

ClientEarth and WWF Greece have filed a complaint against the Greek state for violating an international agreement by effectively making it impossible to challenge unlawful permits for many of the country's coal-fired power plants. The complaint, to the Aarhus Convention Compliance Committee, was accepted in October 2021 and will now be examined.

The complaint was accepted by the Aarhus Convention Compliance Committee and will now be examined. If the complaint is upheld, it could pave the way for future actions by citizens, catalysing positive change towards achieving climate neutrality.



TITLE:
LITHIUM MINING IN PORTUGAL

WHAT WE DON'T WANT:
FAILING TO MEANINGFULLY ENGAGE AND LISTEN TO ALL STAKEHOLDERS, INCLUDING LOCAL COMMUNITIES IN ENERGY TRANSITION DECISIONS, RISKING UNDERMINING THE RIGHTS, NEEDS AND VALUES OF ALL

WHERE: COVAS DO BARROSO, MONTALEGRE, PORTUGAL

WHEN: 2020/ FUTURE

WHAT DOES THIS CASE STORY SHOW?

In Portugal the so-called "race for Lithium" demonstrates how it is vital to have a transparent dialogue between local communities and the central government to try to find a balance between national (and regional/global) interest in the demand for energy transition and local interest.

Lithium-based technology is an important ally for the increased electrification of the energy system, which must accompany the 1.5-aligned energy transition. However, this cannot justify the extraction of mineral resources at any cost without duly considering the social, economic and environmental impacts.

The Government appears to be pushing to go ahead with the mining of lithium (the new white gold) at any cost. Civil society is concerned the government seems to be covering its ears and eyes to the concerns of local communities, even if this may eventually jeopardize the national benefit by devastating natural resources in the long run.

In Covas do Barroso, where one of the largest lithium mines will be situated, various weaknesses of the project became visible when the government launched a public consultation. Red flags became apparent: for instance, the mine will be located in an area considered World Heritage by FAO, while it will also put at risk the biodiversity of the region, affecting endangered species such as the river warbler, the Iberian wolf or the water mole.

The foreseen financial compensation also risks not clearly benefiting the local population, considering that the mine, which has a duration of 12 years, will be visible 30 km away, and the financial compensation does not reflect the danger of the population no longer being able to raise cattle in a region where the quality of meat and honey is demarcated.

To make matters worse, the Government has decided to launch a public consultation for the strategic environmental assessment of eight more areas for lithium prospecting in Portugal, at a time when local elections have taken place and the local authorities have not yet started their mandates, criticizing the Government's timings for starting this process when the local authorities are not yet properly prepared or authorized to analyse the process.

FURTHER WORK NEEDED

At a time when Europe is preparing to start some lithium mining projects and Portugal is at the forefront of this process, it is becoming a certainty that clear rules of best practices and certification need to be defined in order to identify red flags on what cannot happen, otherwise we will be creating an energy transition that is tainted from the start.



TITLE:
ESCAZÚ AGREEMENT IN LATIN
AMERICA AND THE CARIBBEAN

WHAT WE WANT TO SEE:
CROSS-BORDER COOPERATION AND STANDARDS ON ACCESS TO
INFORMATION, PARTICIPATION AND JUSTICE

WHERE: LATIN AMERICA AND
THE CARIBBEAN EXAMPLE LAND

WHEN: APRIL 2021 - PRESENT

The Escazú Agreement²⁴ is a Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean.

The Agreement guarantees the full and effective implementation of the rights of access to environmental information, public participation in the environmental decision-making process and access to justice in environmental matters for Latin American and Caribbean (LAC) countries, and includes the creation and strengthening of capacities and cooperation, contributing to the protection of the right of every person of present and future generations to live in a healthy environment and to sustainable development.

On Apr 22, 2021 the Escazú Agreement came into force. 24 countries of LAC are signatories, while 12 are full Parties. The Agreement sets out 11 principles by which parties are to be guided, including equality and non-discrimination, transparency and accountability, prevention, precaution, intergenerational equity, and maximum disclosure etc. Each Party to the agreement has committed to adopt measures on the necessary legal, regulatory or administrative actions to guarantee the implementation of this Agreement. Also, each Party is required to generate, collect, and disseminate environmental information to the extent possible with resources that are available. It also sets out to secure the right to public participation in environmental decision-making based on domestic and international normative frameworks. Other matters addressed in the Agreement include access to justice, recognition of human rights defenders, capacity building and cooperation.

CAVEATS

The Agreement has just entered into force, but has yet to be ratified by 12 of the 24 signatories, and its full impact will depend on the implementation in each country.



²⁴ Available here: <https://treaties.un.org/doc/Treaties/2018/03/20180312%2003-04%20PM/CTC-XXVII-18.pdf>

ENERGY ACCESS

How energy access can deliver on climate justice and a wider just energy transformation.

Energy access is an essential component of a just energy transformation. The contribution towards social and economic goals of clean and affordable energy access is broad and is not limited to the direct impact of energy itself. For instance, clean energy access has transformative impacts where it brings economic opportunities and transformation of communities through productive use, enabling education and learning, offering improved health, access to information, and consequently access to alternative livelihoods.

To deliver a clean and affordable energy access in the context of a just energy transformation, WWF calls on the international community, governments and investors to put in place policies that:

- Prioritize energy efficiency, raw material use reduction, and increased reuse and recycling. In this way, the burden of costs for transition will be reduced, lowering the risk that disproportionate burdens fall on the most vulnerable
- Focus climate finance and development objectives on increasing access to affordable and clean energy for the poor and vulnerable communities:
 - Facilitate the ownership of clean energy solutions by communities, including the development of renewable microgrids, democratizing energy and enhancing the ability of vulnerable communities to capitalize on the transformation process.
 - Increase targeted financial flows and incentives to renewable energy access programs in developing countries, specifically to MSMEs and end-users who are currently excluded from the existing financing mechanisms.

Over 750 million people lacked basic access to electricity in 2019, while 2.6 billion people - 1/3 of the global population, rely on dangerous and inefficient cooking systems. Not only must we transition the existing energy system to one that is consistent with the global goal of limiting temperature rise to 1.5°C, we must also deliver clean and affordable energy access to those who currently have none.

A just energy transformation should respect and drive progress in the right to clean and affordable energy, as well as community access to and ownership of land and other resources. For instance most communities in developing countries still depend on unsustainable sources of energy such as biomass for cooking and kerosene for lighting. This has compromised their health, education and economic status, contributed to biodiversity loss, environmental degradation and, gender imbalance among other negative impacts.

Ensuring access to clean, sustainable energy drives forward progress on social and environmental goals, which are not directly linked to the energy access itself. Sustainable, affordable and reliable energy access reduces the need to use more polluting and potentially harmful or unsustainable energy sources, like woody biomass. It therefore ensures protection and sustainable exploitation and use of local community environmental resources, such as forests and water

resources, protecting biodiversity and ecosystems which can underpin livelihoods and the prosperity of the community.

Access to energy likewise increases the productivity of households and communities, improving value addition, productive hours and human development through promoting commerce, service delivery and education.

Sustainable renewable energy offers significant advantages over fossil fuels for communities suffering from poor energy access. Not only is it cleaner, reducing and even eliminating trade-offs between livelihood supporting energy and health, but it is by nature more decentralised and so even better for communities where energy access is limited by remoteness. Finally, it is also cheaper to run and can drive the creation of local jobs for maintenance and operation.

While energy access issues are often localized, the international community can play an important role in delivering on this crucial component of climate justice. International climate and development finance should prioritize access to renewable energy to underserved communities around the world through favourable policies and regulations, financial commitments to renewable energy access through investments and affordable credit, and facilitation of technology transfer to developing countries.

Finally, the scale of the challenge of sharing costs - and the risk of disproportionate cost burdens - will be reduced if those costs are smaller. Climate justice in a just energy transformation is therefore also served by innovating and implementing less resource-intensive techniques, as well as using less-resource intensive materials. Together, this means that a just energy transformation should prioritize and uphold energy access and efficiency first as guiding principles.



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TITLE:
ENHANCING CAPACITY OF MICROFINANCE INSTITUTIONS TO DEVELOP AND DEPLOY RENEWABLE ENERGY FINANCIAL PRODUCTS TO MICRO, SMALL AND MEDIUM RENEWABLE ENERGY ENTERPRISES AND END-USERS.

WHAT WE WANT TO SEE:
INCREASED ACCESS TO RENEWABLE ENERGY FOR RURAL COMMUNITIES THROUGH AFFORDABLE MICRO LOANS FROM MICROFINANCE INSTITUTIONS.

WHERE: KENYA, UGANDA, TANZANIA

WHEN: OCTOBER 2021

Many households in Africa face challenges to low-income access modern renewable energy technologies because they are unable to afford them upfront, and/or cannot qualify for conventional loans available from many financial institutions.

The microfinance effort ensures that households are able to get financing to access modern renewable energy technologies for their homes through small, affordable loans that fit within the households' incomes. Secondly, Micro, Small and Medium Enterprises (MSMEs) dealing in renewable energy products are unable to expand to serve new customers and markets due to limitations in capital. This effort enables them to access small loans to grow and expand to serve new customers.

CAVEATS / FURTHER WORK NEEDED

The majority of Microfinance institutions lack adequate funds to commit to renewable energy lending in the midst of other priority sectors, which they find are more lucrative. Secondly, high interest rates mean that the cost of borrowing for renewable energy is still high, making business planning for MSMEs difficult, and making it hard for households to service the loans. Furthermore, microfinance institutions are incapacitated to develop and deploy loan products targeted to renewable energy.

The Africa Energy Hub has signed MoUs with Microfinance Institution Associations in Kenya, Uganda and Tanzania that will see the capacity of microfinance institutions built to develop and deploy renewable energy microloans.



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JUST TRANSITION

Just transitions are vehicles to deliver a broader just energy transformation

Just transitions are essential components and vehicles of delivery for the just energy transformation, but only if they are delivered in alignment with the wider socioeconomic transformation needed to achieve a sustainable and fairer world. This means that just transitions should be:

- Fair: They should uphold the rights, needs and values of everyone - no single group should be privileged vs others and the upfront costs must not fall on those with least responsibility for climate change or ability to bear them
- Sustainable, enabling and supporting ambitious, 1.5-aligned transitions
- Part of wider, holistic strategies that contribute to the energy transition needed to limit global temperature increase to 1.5°C and that protect nature, rather than drive conflict between it and achieving social and economic goals
- Planned and implemented early
- Inclusive: governments should inclusively and transparently develop comprehensive just transition strategies at the national level and design and implement just transitions at the local level. This means structures must be clearly defined to facilitate robust and meaningful stakeholder engagement and social dialogue.

The ILO guidelines for a just transition towards environmentally sustainable economies and societies for all should be upheld.

The international community and particularly developed countries should facilitate just transitions beyond their borders, though:

- Equitable climate finance and sensitive domestic policymaking that avoids shifting the burden of transition to other countries or regions.
- The development of supportive frameworks for best practice sharing and encouragement, as well as forums to discuss and identify common challenges, as well as find joint solutions.
- The provision of technical and financial support for just transition design and implementation in developing countries.
- Enforcement of polluter pays, including for multinational corporations towards the communities in which they operate.

A just transition is a timely, participatory and well-supported transition to a system in which nature and people live in harmony. We refer here to just transitions, recognizing that the processes around the world for justice in the energy transition (as well as others needed to reach climate neutrality) are bespoke and targeted to specific groups, communities and regions.

The term is often applied in reference to the process of ensuring that the transition out of fossil fuels does not generate new social injustices, including by leaving workers behind. While the transition overall is expected to be positive, calls for a just transition are often founded upon the risk that the negative impacts and costs of

the transition fall disproportionately on some groups while the benefits might not be felt equally. However, in a comprehensive approach to energy transition, 'just transition' should also apply to the transition to new sustainable sectors, like renewable energy and renewable energy supply chains, as well as for the workers and communities indirectly affected by the transition. We also cannot ignore existing injustices and inequalities which result from the status quo.

The widely-endorsed ILO guidelines for a just transition set out what just transition should mean in practice²⁵. These guidelines are a gold standard for just transition, but it is important to highlight certain elements which

²⁵ Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf

are crucial for just transitions to really align with and contribute to the broader just energy transformation and which are sometimes ignored or are discounted in practice.

Just transitions should align with, and contribute to, the wider socioeconomic transformation needed. While the focus of a just transition may be to proactively manage the transition of a particular sector, avoiding the creation of new injustices, existing inequalities which may have been created or entrenched by the current economic or energy system should not be perpetuated. For example, extractive activities such as coal mining and the combustion of fossil fuels have damaged the health of communities for decades or even centuries. At the same time, utilities may have benefited from structures that have enabled the externalization of such environmental costs, while profits are internalized. These negative impacts and injustices should also be tackled in a just transition approach.

Addressing existing and systemic vulnerabilities requires that the rights and needs of all are identified and taken into account, with particular emphasis on those who are most affected, but least capable of engaging with the design and implementation of the transition. Just transitions must therefore be inclusive. Social dialogue in energy transitions is important to ensure these transitions do not lead to a dilution of workers rights. Civil society can represent dispersed interests and groups who cannot be present, such as future generations, and so should be involved in designing the just transition. Likewise, women, vulnerable communities and indigenous groups must also participate equally and meaningfully in the development and implementation of just transition policies, ensuring their rights, needs and values are respected.

Just transitions must also be sustainable and align with the ambition to prevent a rise in global average temperatures above 1.5°C. Failing to limit climate change will aggravate existing injustices and risk disproportionate negative impacts on the poorest, both in the groups and regions targeted by the targeted just transition strategy and beyond.

Finally, and as outlined in the above sections, failing to protect biodiversity and eroding our natural resource base will undermine the foundations of wellbeing broadly. This means that just transitions cannot be disentangled from the broader questions of climate ambition, climate justice and economic, social and environmental policy. The just transition must also be a nature-positive transition.

A just transition is not, and can never be used to justify, a slower transition. To do so would delay tackling the existing injustices and perpetuating existing polluting

models in favour of prolonging the status quo.

It would risk missing opportunities to leap forward and embrace the new opportunities that the energy transition presents. In parallel, it would reduce the time available to transition, increasing the risks it presents to communities by walking them towards an 'economic cliff edge' as fossil fuels become increasingly less competitive versus renewables. But perhaps most tellingly, it would also fail to deliver climate justice by hampering the transition to an energy system which can limit global temperature increase to below 1.5°C.

At the national level, this means that national strategies and frameworks for just transition must be developed. These should set out a common vision for delivering just transition which upholds the imperative of protecting biodiversity, enhancing resilience and limiting climate change to 1.5°C, putting the wellbeing of people and planet before economic growth goals.

Processes should be established to empower the vulnerable and communities at the local level to design and implement their future through just transition strategies that are coherent with the broader national vision. At all levels, these strategies and frameworks should be developed inclusively and with the meaningful participation of all affected groups. Robust structures should be put in place to ensure the norms of social dialogue and meaningful and robust stakeholder engagement are upheld, as demanded by the ILO's guidelines.

TOGETHER, THESE LOCAL AND NATIONAL STRATEGIES AND PLANS WILL SEND CLEAR SIGNALS TO INVESTORS, PROMOTE CLIMATE JUSTICE AND THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT GOALS, WHILE ENSURING NORMS SUCH AS RESPECT FOR POLLUTER PAYS. THEY SHOULD ALSO ENSURE THAT INVESTMENT DECISIONS WILL NOT NEGATIVELY IMPACT THE OPPORTUNITIES OF FUTURE GENERATIONS. THE STRATEGIES AND FRAMEWORKS SHOULD COVER BOTH THE TRANSITION TO NEW SUSTAINABLE SECTORS AND ECONOMIES, AS WELL AS THE TRANSITION FROM FOSSIL FUELS.

At the international level, a just transition is exemplified by equitable burden sharing between high and low-income countries on the basis of respective responsibilities and capabilities. But the international community can and must do more to support just transitions on the ground, as even if the transition overall is equitable, it will not deliver just energy transformation if the systems and structures remain the same.

The international community should develop supportive frameworks for best practice sharing, so that the overall costs of transition can be reduced by avoiding past mistakes and building on past successes.

International fora should also work to highlight, discuss and find joint solutions for policy decisions, such as transitions requiring more rare earth materials. that may have justice impacts on other regions and countries. Finally, in line with polluter pays, technical and financial support for just transition in developing countries should be provided by developed countries, but the power to decide on the design and implementation of just transitions should be as local as possible. Likewise, international cooperation will be needed to enforce the responsibility of multinational corporations towards the communities in which they operate, notably in line with the polluter pays principle.



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TITLE:
EU JUST TRANSITION MECHANISM

WHAT WE WANT TO SEE:
INTERREGIONAL SOLIDARITY AND INCLUSIVE, STRATEGIC
PLANNING FRAMEWORKS TO DELIVER JUST TRANSITIONS ALIGNED
WITH CLIMATE COMMITMENTS

WHERE: EU

WHEN: JANUARY 2020 - ONGOING

The European Commission announced the Green Deal in December 2019, promising a just Transition for all. This translated into a proposal for just transition mechanism (JTM) in January 2020, consisting of a grant giving fund and two other pillars: a public sector loan facility and an investment guarantee mechanism of crown in public and private investments.

The JTM is expected to raise over €100 billion in public and private investment to target support for addressing social, environmental and economic challenges faced by the regions and people as they implement the transition needed to reach the EU's climate and energy targets, including a -55% emissions cut by 2030. It is primarily for the regions most dependent on fossil fuels.

The power of this framework is demonstrated by the requirement to develop Territorial Just Transition Plans (TJTJs) to access funds. These plans must outline the transition process to 2030 at the regional level and be accompanied by analysis of the social, economic and environmental impacts of the transition in the region. Crucially the plans should include a timeline for significantly claiming down or ceasing fossil fuel activities.

The plans must be developed at the level of the municipality, empowering the local level to design their future. Moreover, they should be developed in respect of the European Code of Conduct on Partnership; the European Commission recognizes the necessity of meaningfully engaging those impacted by the transition on the ground in its guidance on the implementation of just transition "The TJTJs can only reflect and address the real situation on the ground and have an impact on the just transition if all relevant national, regional and local stakeholders are involved and take ownership of the transition in their territory." The respect for the Partnership Principle, in design and implementation (via the establishment of monitoring committees) will be verified by the Commission before approving plans, as will the existence of a defined transition process and analysis of the social, economic and environmental impacts.

CAVEATS:

A WWF analysis of 14 of the draft plans shows significant problems with partnership and inclusion in some member states, although it remains to be seen whether the Commission will accept plans for approval where serious concerns have been raised²⁶.

Other issues raised by civil society include poor implementation of the polluter pays principle²⁷, the risk of fossil gas and waste incineration investments under some plans and a lack of clear phase out dates for coal in many of the member states, impeding development of the plans. However, the latter issue is improving as Romania has just announced a 2032 coal phase out date in the context of its national recovery and resilience plan and Bulgaria may also soon.

As in all just transitions, design is just the start, implementation will be key.

Finally, the JTM addresses only one part of just transition, focusing on the transition from fossil fuels. It is a relatively small amount of finance and is already stretched across many regions; even if it is for only the social, economic and environmental impacts and not energy transition itself. Holistic strategies will be needed to deliver an ambitious energy transition across the EU, of which the JTM is one part.

²⁶ See letter sent to the European Commission on September 2nd 2021: https://wwfeu.awsassets.panda.org/downloads/ngo_tjtp_recommendations_letter_to_eu_commission_september_2021.pdf

²⁷ See CEE Bankwatch briefing, "Briefing for the European Commission: the Polluter Pays Principle in the just transition process – diagnosis and recommendations" October 2021. Available at: [xxxxxxxxxxx xxxxxxxx/xxxxxx](https://www.bankwatch.org/wordpress/wp-content/uploads/2021/10/Briefing-for-the-European-Commission-the-Polluter-Pays-Principle-in-the-just-transition-process-diagnosis-and-recommendations-October-2021.pdf)



**OUR MISSION IS TO STOP THE
DEGRADATION OF THE PLANET'S
NATURAL ENVIRONMENT AND TO BUILD
A FUTURE IN WHICH HUMANS LIVE IN
HARMONY WITH NATURE.**

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