



HOW IS THE TRANSITION TO A CLIMATE-NEUTRAL ECONOMY MADE JUST?

just transition away from fossil fuels in power production explained, with examples

BRIEFING PAPER

Climate Action Network (CAN) Europe is Europe's leading NGO coalition fighting dangerous climate change. With over 160 member organisations from 35 European countries, representing over 1.700 NGOs and more than 40 million citizens, CAN Europe promotes sustainable climate, energy and development policies throughout Europe.

With the current level of climate crisis, a global transition to a low-carbon economy is an urgent necessity, rather than an option. According to the IPCC 1.5°C special report (SR15), rapid action is needed to limit the global temperature rise to 1.5°C in line with the Paris Agreement. This will require key changes in energy supply and demand. Based on recent science and the equity principles that underpin the Paris Agreement, the European Union would need to reduce its greenhouse gas emissions by at least 65% by 2030 and aim to achieve net zero emissions by 2040.

At global level, some key characteristics of the 1.5°C target-consistent sectoral transformations include fully decarbonised primary energy supply by mid-century, large energy demand reductions across all sectors by 2030, large reductions of fossil fuel use, and rapid increase in the use of renewable energy. OECD countries should phase out coal energy entirely by 2030 the latest, phase out gas by 2035 and oil by 2040¹.

The shift is already happening in the power sector, as renewable energy sources become ever cheaper at an unprecedented pace, and global push for institutional decarbonization starts to bloom with solid commitments. However, in order to achieve the 1.5°C target, the transition has to happen even faster. It will also have to be followed by other sectors, leading to a climate-neutral society. This economy-wide transition needs to be just and fair, and ensure that people are not left behind, that they get the chance to adjust. For this to happen, governments, local authorities, businesses and finance institutions, together with unions, local communities and environmental organizations need to bring a comprehensive Just Transition Framework to complement the zero-emissions transition. The sooner such measures are taken, the less of a burden it will be on society.

¹ https://climateanalytics.org/media/report_coal_phase_out_2019.pdf

BEEN THERE, DONE THAT: BACKGROUND OF JUST TRANSITION

Despite the fact that the term, just transition, is used more and more widely in the climate change context, there is no single definition of its meaning.

According to the International Trade Union Confederation (ITUC), “A Just Transition is an economy-wide process that produces the plans, policies and investments that lead to a future where all jobs are green and decent, emissions are at net zero, poverty is eradicated, and communities are thriving and resilient”².

Throughout history, sectoral changes happened in tandem with the change in global social, economic, and environmental policies. Some of them had drastic impacts on workers’ families, as well as communities who are directly affected by sectoral changes.

Tony Mazzocchi, a leader of the Oil, Chemical, and Atomic Workers Union (now merged with the steelworkers), was the first person to bring up the just transition notion in the public climate agenda, in the 1990s, in the US. In the 1970s, he was active in the disarmament movement bringing trade unionists into the peace movement. While being an advocate of the “ban the bomb” movement, he was aware that disarmament might cost them their jobs, and proposed that workers whose jobs might be threatened by disarmament should not be left behind in a more peaceful world³. Following the Rio Climate Summit in 1992, with the confirmation of fossil fuel caused climate change, Mazzocchi revived the idea. As part of both the labour and environmental movements, he argued that, “Those who work with toxic materials on a daily basis in order to provide the world with the energy and the materials it needs, deserve a helping hand to make a new start in life”⁴.

Despite the popularity of the notion spreading widely since then, the concept is only being adopted by various actors since very recently. This is because climate change has only started to be seen as an emergency, needing immediate action, since the founding of the Paris Agreement. Also, people are now more aware that just transition plans must be put in place more rapidly as the ongoing replacement of coal by cheaper renewable options is speeding up, risking those employed in the coal industry to be stranded.

As a result of the strong push by trade unions and environmental organizations, the concept found its place in the Paris Agreement text in 2015 as, “Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities,...”⁵

² <https://www.ituc-csi.org/just-transition-where-are-we-now?lang=en>

³ https://ecology.iww.org/PDF/LNS/JustTransitionReport-FINAL.pdf?bot_test=1

⁴ Tony Mazzocchi, “A Superfund for Workers,” Earth Island Journal, 9(1).

⁵ <https://www.ituc-csi.org/just-transition-in-the-paris>

TAPPING INTO THE POTENTIALS OF A JUST SOCIETY

Recent social movements such as the Yellow Vests⁶ in France, and the uprisings in Chile⁷ demonstrate that the current political and economic system is far from providing a just society. They also show that climate action must prioritize equity, otherwise measures are hard to implement, and if implemented, the burden would be paid by the most vulnerable. The burdens of increasing austerity measures, in addition to social inequality, are shouldered by the most vulnerable.

The impacts of climate crisis are already visible in economic sectors such as agriculture, fishing, beekeeping, forestry, as well as service sectors such as fire, health, and tourism. A just transition to a climate-neutral economy also needs to ensure a just transition to a climate-resilient economy. The families whose livelihoods depend on the sectors with high climate vulnerability should be considered in the systematic socio-economic transformation plans for a just transition.

A similar situation is true for the people who suffer most from the current, fossil-fuel-based economy. As more and more local communities join the resistance against fossil fuel production and extraction infrastructures, it becomes clear that the business-as-usual is far from being just - due to land appropriation, health impacts, displacement, ecosystem destruction, water and soil contamination, on top of the climate disasters.

The transition has already started in the coal sector. Renewable energy sources get cheaper and new coal phase-out commitments from European governments and financial institutions are announced daily. Coal mining and coal power generation are the lowest hanging fruits in the transition towards a low-carbon future and are incompatible with climate change challenges and health standards. Coal will therefore need to be phased out the fastest, followed by the phase out of other fossil fuels. With coal companies announcing bankruptcy or closing down their facilities, thousands of worker families risk being left behind, without any future options for their livelihoods. In the year 2019 alone, as the industry shrinks, five big US coal companies filed for bankruptcy⁸.

Moreover, despite the promises of coal companies that new coal projects would create new jobs, it is now clear that the scale of these employment promises are very much exaggerated. A recent study of the experience in southeast European countries shows that instead of claimed 10,030 jobs maintained and a further 17,600 new jobs to be created by the proposed coal projects there,

⁶ <https://www.brookings.edu/blog/fixgov/2018/12/20/what-frances-yellow-vest-protests-reveal-about-the-future-of-climate-action/>

⁷ <https://www.climatechangenews.com/2019/11/01/chile-abandoned-hosting-cop25-cannot-abandon-people/>

⁸ <https://www.washingtonpost.com/business/2019/10/29/coal-giant-murray-energy-files-bankruptcy-coals-role-us-power-dwindles/>

a loss of around 5,170 jobs is more likely⁹. This trend will continue as such, and proposing new coal projects is no solution for new jobs creation. Instead, this will only delay a just transition while increasing the burden on local communities in coal regions.

According to the International Labor Organization (ILO), if a transition to a low-carbon economy is accompanied by “policies that facilitate the reallocation of workers, advance decent work, offer local solutions and support displaced workers”, then the net effect on job numbers will be positive. ILO’s recent report states that low-carbon measures taken in the production and use of energy, will lead to job losses of around 6 million as well as the creation of around 24 million jobs. “The net increase of approximately 18 million jobs across the world will be the result of the adoption of sustainable practices, including changes in the energy mix, the projected growth in the use of electric vehicles, and increases in energy efficiency in existing and future buildings.¹⁰”

It is important that a just transition should focus on reshaping regional economies, and that there is no magic remedy to make it up for those who suffer most. The transition has to happen fast, and it can be used to tap into the non-fossil-fuel potentials of different regions, making it also just for those who pay with their health and livelihoods the real cost of fossil fuels.

It is also necessary to ensure that funding earmarked for fossil-fuel regions, actually supports their low-emissions transition and socio-economic transformation of local communities, rather than the bailout of coal companies. Just transition plans and their implementation should receive appropriate funding by states, the EU, multilateral development banks, international finance institutions, and private banks.

A holistic approach, one takes into account i) public policies (especially social and structural ones), ii) participation of the public and proactive engagement of all relevant stakeholders, iii) core factors of socio-economic development (research and innovation, education, SME development, infrastructure and digitalization), iv) appreciation of local industrial heritage and identity, is needed to make sure equity principles are well taken into account.

⁹ <https://bankwatch.org/wp-content/uploads/2018/06/Jobs-study-june-2018-update-ENG-CEE-Bankwatch.pdf>

¹⁰ https://www.ilo.org/weso-greening/documents/WGEX_EN.pdf

Gas is not a bridge fuel

While Europe grapples with how best to support a just transition for the existing fossil fuel sector, it continues to build more fossil fuel energy, thereby risking further lock-in and future transition costs.

The recent IPCC 1.5°C report has made it clear that time is rapidly running out to keep warming within 1.5 degrees. This supports recent research¹¹ which concluded that there is no atmospheric space for Europe to substitute coal for gas or to continue to use gas in its energy system beyond 2035. Therefore, there is an urgent need to switch the energy system to one that runs on sustainable renewable sources. Europe must also cease investing in further gas infrastructure with lifetimes of 50 years or more - long past the time when Europe needs to halt fossil fuel emissions entirely. Europe must avoid the lock-in effects of new fossil fuel infrastructure, and future transition costs, by ensuring that investments in new oil and gas infrastructure are halted and channelled instead to 'no-regrets' renewables and energy efficiency today.

LESSONS LEARNT: EXAMPLES OF JUST TRANSITION

As the definition of the just transition concept vary, there are different types of real-life implementations. Some of these examples were driven by progressive policies, whereas others came as social and economic solutions - pushed through by unions, civil society organizations and utilities.

This briefing presents some of those examples under different categories.

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http://www.foeeurope.org/sites/default/files/extractive_industries/2017/natural_gas_and_climate_change_anderson_broderick_october2017.pdf

Leave no one behind - Direct involvement of trade unions

SPAIN

Spain's coal industry employed more than 100,000 miners in the 1960s, but its energy dominance was eroded by cheap imports and increasing awareness of the industry's environmental, health and climate costs. In 2018, Spanish government announced the closure of most of its coal mines in its Plan del Carbon in tandem with the "Just Transition" deal with unions. Spanish unions had fought for such an agreement for many years. The €250 million plan has been acknowledged as a landmark deal won by Spanish mining unions for a Just Transition from coal mining, with sustainable development for mining regions. The transition deal covers Spain's privately-owned pits, and the funding will support business and clean energy initiatives in mining regions over the next five years (2019-2023)¹². The agreement offers early retirement for miners that are over 48 years old, retraining for green jobs, and environmental restoration. The European Commission funded the deal as Spain's plans were found in line with EU state aid rules¹³. This example is the first of its kind as Just Transition was mentioned explicitly in the deal.



DENMARK

In Denmark, the high rate of worker unionization played a key role in transitioning the power sector from coal to wind. Starting in the 1970s, Danish social dialogue processes produced strong industrial and climate policy aimed first at energy independence and later at a just transition. Danish unions' pro-climate standing had convinced them to see green jobs as the country's biggest potential for new job creation. They have regularly called for more ambition on climate and energy targets, and propose, promote and comment on new

¹² <https://www.etuc.org/en/spain-guarantees-just-transition-miners>

¹³ https://ec.europa.eu/commission/presscorner/detail/en/IP_16_1910

climate policy initiatives and their implications for creation of decent jobs. In 2015, Denmark's wind industry employed 31,251 people and wind power delivered 42% of Denmark's electricity¹⁴. Moreover, Danish pension funds have made investments in renewables, primarily offshore wind.



¹⁴ <https://www.oecd.org/environment/cc/g20-climate/collapsecontents/Just-Transition-Centre-report-just-transition.pdf>

Social transformation - Stakeholder Engagement

RUHR, GERMANY

Formerly dependent on coal and steel industries, the Ruhr region of Germany has been phasing out hard coal mining since mid-1950s. Mines in Ruhr provided around 500,000 jobs by the beginning of the 20th century. Due to the fact that hard coal mining was getting uncompetitive, and despite getting more and more subsidies, many mines were closing rapidly, the region decided to plan for a just transition. The transition story of Ruhr is often referred as one of the best practices of systematic just transition to a low-carbon regional economy. 2007 was a landmark year, as the state of Northern Rhine-Westphalia (NRW) decided to close its last hard coal mine by the end of 2018, in a socially acceptable way¹⁵. The stakeholder engagement processes and negotiations had started decades before the regional phase out decision came out. In the mid-1980s, the regional state government began to set up a total of 29 local technology transfer centres offering support to new business start-ups in promising areas, particularly environmental technology. By the mid-2000s, firms, universities and research institutes in the growing environmental technology sector employed some 100,000 people altogether¹⁶. In 1996, Science Park Gelsenkirchen was established. This project, funded by the European Commission, promoted the use of grid connected solar PV generators integrated into the roofs of commercial buildings. It created hundreds of renewable energy jobs (producing solar modules, solar thermal collectors, heat pumps, cogeneration units and wind turbine parts), and prompted additional employment in education, science and R&D¹⁷. In 2018, Germany announced plans to phase out coal-fired power generation between 2035-2038. A national coal phase-out law, and a package of measures to support the transition has been drafted in 2019. The draft package currently does not mention just transition support for specific coal regions and communities, after the planned power plant and mine closures.

CORNWALL, THE UK

In the beginning of the 1990s, a major open pit mine for china clay in Cornwall, England came to the end of its economic life and was closed after being operational for 150 years. Initiated as an educational project, Eden Project created the biggest greenhouses of the country on the abandoned mines. Rain water that fills the huge craters of the mines gets purified and used for irrigation of plants in the greenhouses. The first year of the project created 400 jobs and the institution raised 190 million Euros of income that year. Since then the project became a tourism center, attracting around 10 million visitors per year. Moreover, as Eden Project emerged as one of the important research and education

¹⁵ <http://www.just-transition.info/just-transition-is-possible-the-case-of-ruhr-germany>

¹⁶ <https://unfccc.int/sites/default/files/resource/Just%20transition.pdf>

¹⁷ <https://cordis.europa.eu/project/rcn/21850/en>

centers on botany, it has been contributing to the local economy by hosting key events and trainings every month.

UPPER NITRA, SLOVAKIA

In July 2019 the Slovak government approved the plan for Upper Nitra's transition away from coal, with inputs from the local community. The communities had been opposing a new coal mine project, organised in working groups to prepare scenarios for the transformation of the region to phase out coal¹⁸. 'Transformation of Upper Nitra Region: Action Plan' came out as a success of local communities to divert financial support of the European Commission's Platform for Coal Regions in Transition¹⁹ towards the public interest, and away from the interests of private companies who wanted to make use of the same funding for their own benefits. Expert participation in the Action plan aims to support the region in addressing three key challenges of the region's transition from coal: diversification of the economy, replacement of coal heating, reclamation of mining land²⁰.

¹⁸ https://bankwatch.org/press_release/slovak-government-approves-just-transition-plan-for-upper-nitra

¹⁹ https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/expert_support_coal_en.pdf

²⁰ <http://ceec.sk/ppt/Lamackova.pdf>

Not-So-Just: Ongoing transitions that need just transition plans

UKRAINE

Despite benefiting from generous state subsidies, the coal mines in Ukraine have been closing. As a member of the Energy Community, the international treaty working to integrate the energy market of the EU with those of its neighbours, the country's 2015 Energy Strategy announced measures for the closure of unprofitable state mines to be completed by 2025, and a plan for mitigation of social and environmental impacts to be put in place for each closed mine. However, to date, the Action Plan for the "Energy Sector Reform (up to 2020)" of the same energy strategy has not been completed. At the same time, since 2004, following the closure of tens of coal enterprises, coal production decreased from 164 million tons in 1990 to 33 million tons in 2018, leading to the decrease in the number of workers employed in the coal industry by 88% between 1991-2013. According to civil society organizations, this shows that coal mine closures started "without adequate plans for social and economic support for the regions, which caused negative consequences"²¹. Recently, six coal mining towns of the Donetsk region established their Platform for Sustainable Development. The Platform that includes representatives of local authorities and civil society organizations, advocates strengthening partnerships through social and economic development of the communities, reducing greenhouse gas emissions and transforming the vision of coal regions, while increasing the well-being of the local population.



²¹ https://en.ecoaction.org.ua/wp-content/uploads/2019/06/mines_assessment_en-s.pdf

ESTONIA

In Estonia, the primary source of energy is oil shale which most people outside Estonia are not aware of. It is similar to coal as it contains hydrocarbons, but it has even higher CO₂ emissions per unit, with lower energy output. Use of oil shale makes Estonia one of the top three countries in the EU with the highest GHG emissions per capita, and the most carbon-intensive economy among the OECD countries. However, due to high CO₂ prices, electricity production from oil shale became unviable in 2019. Major utilities' announcements of unit closures²² started to create trouble, as many workers feel stranded. This issue was expected to come up for some time whereas until recently, decision-makers were not interested in planning a just transition from oil shale. There has been a nation-wide hope that the oil shale electricity production would fade away gradually. No clear plan has been communicated on how to transition the economy of the Ida-Virumaa region, where immediate oil-shale plant closures are announced. The main idea of the government is to expand oil production from oil shale. These investments will lock Estonia in a high-carbon pathway, and make oil shale workers vulnerable to an insecure future, dependent on climate policies and oil prices. However, renewables, especially offshore wind farms have a great potential in Estonia. Renewable Energy Association has calculated that Estonia can produce its electricity and provide heating based on 100% renewable sources by 2030, but for now the national renewable energy target is only 42%. Fortunately, many local people recognize the need for shifting to a low-carbon pathway, and a just transition framework will be a practical tool to achieve it.

BULGARIA

The Bobov Dol coal mine, in the Southwest of Bulgaria was closed by the end of 2018, leaving its workers redundant almost overnight. The mine where thirty years ago 10,000 people worked, employed around 500 workers before it was closed²³. The closure happened without any planning in an area which has been dependent on coal for decades. Although the region has untapped potential in non-coal sectors, the decision makers have little interest in coming up with a systematic just transition plan to exploit these potentials. Southwest of Bulgaria is home to over 150 protected areas of all types, including two of the country's three national parks: Rila Park (the largest in Bulgaria) and Pirin Park (under the protection of UNESCO). These conditions favour the development of various forms of tourism, organic farming, organic stock-breeding, sustainable forestry and fishing²⁴. It must be made sure that economic activities should be compatible with the conservation of valuable species, habitats and nature. Moreover, in the foot of the Rila mountains there are vast cherry fields, which could provide agricultural sources of income for the local communities.

²² <https://www.icis.com/explore/resources/news/2018/09/07/10257649/icis-power-perspective-estonia-will-close-619mw-of-oil-shale-generation-in-2019/?redirect=english>

²³ <http://www.just-transition.info/clinging-to-coal-a-sobering-look-into-bulgarias-energy-transition->

²⁴ <https://regionsbeyondcoal.eu/wwf-bulgaria-just-transition-for-the-coal-mining-regions-in-southwest-bulgaria/#:~:targetText=Now%20we%20are%20facing%20this,the%20energy%20and%20coal%20industry.>

The USA

As the coal industry significantly shrinks in the US, despite the central government's various measures to keep it alive, hundreds of thousands of workers are left stranded. Only in 2019 five coal companies filed for bankruptcy. The most recent bankruptcy filing came from Murray Energy, one of the biggest American coal companies. The announcement and the non-existence of a just-transition plan threatens 82,000 miners to lose their pensions²⁵. However, more and more American coal plant operators announce speeding up their coal exit by not spending money on improvements that will make them run for longer, in addition to making pledges to contribute to local and regional just transition funds.



CONCLUSION AND RECOMMENDATIONS

There is no one-size-fits-all recipe for a just transition to be implemented in different countries and different regions. However, there are some key ingredients of a just transition to a climate-neutral economy which should be adopted and adapted to different regions according to local needs, potentials, risks and opportunities.

While developing and implementing a just transition, the following principles should be respected:

²⁵ <https://www.washingtonpost.com/business/2019/10/29/coal-giant-murray-energy-files-bankruptcy-coals-role-us-power-dwindles/>

1) Ambition: Long-term decarbonisation objectives must underpin the transition

Europe needs to contribute its fair share of the effort needed to limit temperature rise to 1.5°C, and hence needs to fully decarbonise and reach net zero greenhouse gas emissions by 2040, in line with the scientific findings in the IPCC's Special report on Warming of 1.5°C. All OECD countries should phase out coal energy by 2030 the latest, phase out gas by 2035 and oil by 2040. The just transition is a vital element of the transition towards a net-zero emissions economy. To achieve that, countries and regions affected should develop long-term, strategic transition plans that would reflect the fact that the just transition is “an economy-wide process”.

2) Inclusiveness

Just transition processes and planning should actively engage and inform workers, their communities, trade unions, policy makers, experts and academia, NGOs, businesses and investors.^[1] Although all stakeholders should be involved, the roles of each stakeholder and their decision-making power must be clearly defined. Potential conflicts of interest between different stakeholders should be dealt with by making sure the impacted communities and the most vulnerable are prioritized, recognizing that the inevitability and swiftness of the transition itself cannot be negotiated²⁶.

3) Early planning

Early and structured socio-economic analysis is needed to inform the transition. In order to develop meaningful transition plans, an assessment of the opportunities and challenges the transition presents is a vital and logical first step. Systematic, early assessment and research lays the groundwork for future sustainable development strategies.

4) Communication and participation

Each region has unique demographics, resources and cultures, as well as different potential for developing new industries, economic opportunities and thus livelihoods for communities. Early and meaningful consultation and participation of stakeholders through local network engagement in decision-making processes has been shown to reveal decentralised information about regional socio-economic strengths and weaknesses and is also a common theme of a successful transition²⁷.

²⁶ http://awsassets.panda.org/downloads/wwf_aneujustenergytransitionfund_briefinga4_final.pdf

²⁷ http://awsassets.panda.org/downloads/wwf_aneujustenergytransitionfund_briefinga4_final.pdf

5) Support for people's retraining and education

A just transition is about protecting the workers and communities dependent on jobs in high carbon sectors like fossil fuel extraction, generation, distribution and supply. It does not mean bailing out big energy companies for their stranded investments in fossil fuels. Increased investments, which comply with a climate-neutral economy, in the fossil fuels regions should be accompanied by support for retraining and education of the local people. The transition will entail changes in skills demand, especially for certain sectors²⁸. Investing in skills development is essential for the transition and reduction of greenhouse gas emissions.

6) Accountability

Companies must take responsibility for the impacts of their operation and rehabilitation of former fossil fuel sites. Fossil fuel facilities leave an enormous footprint on the environment, natural habitats, and community lands. In addition to the air pollution caused by the burning of fossil fuels, their extraction, transportation, and waste dumps contaminate forest lands, underground water resources, and rivers. This contamination spreads outside geographical boundaries of mining areas, polluting agricultural land and drinking water further afar. Coal mines continue emitting methane, one of the most potent greenhouse gas in the atmosphere, even after they are abandoned. The pollution from fossil fuel infrastructure must be first measured and then cleaned-up, while rehabilitating damaged natural habitats and community lands.

As examples in this briefing show, when transitions happen without planning and the key principles listed above are missing, they risk leaving thousands of local people stranded in an unviable past. Unable to tap into the non-fossil potentials of those regions, they miss out on the benefits of regional development. On the other hand, when the focus is on systematically making the transition just, a shift can be triggered from the injustices of high-emissions economies to a climate-neutral and just society.

ENDS

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²⁸ http://awsassets.panda.org/downloads/wwf_aneujustenergytransitionfund_briefinga4_final.pdf

