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Vulnerable workers, communities, and a just transition

Pre-read packet

Contact casey.cronin@climateworks.org with any questions

Background

Climate modeling clearly tells us we need to achieve close to net zero emissions by mid-century. The scale and speed of the transition implied is practically unprecedented in its political complexity and will have very real economic, social, and political impacts. A successful transition will create both winners and losers, both in terms of political power and economic development. This parallel session will explore where and how to leverage opportunities to increase shared prosperity as the energy and land-use sectors decarbonize, as well as discuss the political context and philanthropy's role in enabling a just transition.

Session objectives

1. Host a panel discussion amongst a globally diverse set of experts that surfaces tensions and open questions when considering vulnerable workers, communities and a just transition.
2. Generate a sense of curiosity for thinking about where and how there will be political and economic winners and losers, and not always in obvious locations and sectors.
3. Identify a few key areas where philanthropy can make a difference in the next couple of years in ensuring a more just transition away from a high-carbon economy.

Key Takeaways from Pre-read Materials

This pre-read from session presenter Ajay Gambhir offers a summary of a more detailed paper [*forthcoming*] that presents a review of existing academic and grey literature on the different aspects of addressing the social and spatial impacts of transitions to low-carbon energy systems.

While this paper discusses just transitions and its implications for the workforce, it also encompasses other aspects relating to the distributional impacts of low-carbon transitions, such as the effects on poorer households of removing fossil fuel subsidies, the implications of lost fossil fuel related revenues for particular countries and regions, the potentially adverse consequences of the rapid deployment of low-carbon technologies for some communities, and issues concerning the potential decline of regions which are heavily dependent on carbon-intensive industries.

A number of case studies highlight some common features of relatively successful transitions.

This analysis calls for the proactive identification and analysis of the nature and distribution of impacts from low-carbon transitions on specific regions, sectors, workers, and communities. This recommendation to understand the distributional implications of low-carbon transitions has clear applications as we consider deep decarbonization in different regions, electrification across end-use sectors, as well as scaling up carbon dioxide removal, among other strategies.

Policy strategies and measures to address potential adverse impacts on different groups, sectors and regions in a rapid low-carbon energy transition

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1 Introduction and context

In many countries, regions, and economic sectors, a transition to a low-carbon energy system is underway, and there are signs that its pace could accelerate. This follows from the momentum to decarbonise created by the UNFCCC Paris Agreement[1], as well as the spectacular cost reductions in solar photovoltaics, wind power, batteries and electric vehicles over the last few years[2]. As a result of these forces, many governments, businesses and consumers are looking at alternatives to carbon-intensive, fossil fuel based energy sources, technologies and practices.

Whilst this is undoubtedly positive from a climate change perspective, it calls into question how beneficial a low-carbon transition might be for all stakeholders concerned. For example, a rapid decline in parts of the fossil fuel extraction sector (such as coal mining) may result in abrupt job losses, often with few other jobs available for which workers can reskill or retrain. The result of such changes in employment, and the potential spatial concentration of these changes, could be very damaging for individual livelihoods, states of mental and physical health and the quality of lives, as well as for specific communities and regions. In addition, these negative impacts could weaken support for, and indeed create considerable resistance towards, the low-carbon transition, when – given the urgency of decarbonising – there is little time to waste and little room for any transition to stall or even reverse.

This paper is a summary of a more detailed paper that presents a review of existing academic and grey literature on the different aspects of minimising the adverse social and spatial impacts of transitions to low-carbon energy systems. Specifically, it focuses on understanding which regions, sectors and groups could be adversely affected, and what lessons can be learned from past and current transitions, so as to inform actions to minimise the adverse impacts of current

and future transitions.

A central aspect of the transition to a low-carbon economy is that of "just transitions", a term which arose in the late 1970s when labour unions in the USA sought support (including wages, retraining and relocation support) for workers in polluting industries whose jobs were threatened by environmental regulations, as well as financial support to invest in alternative industries[3]. Just Transition has now become a recognized international norm, as embodied in the UN International Labour Organization (ILO)'s 2015 *Guidelines for a just transition towards environmentally sustainable economies and societies for all*[4] and referenced in the Paris Agreement.

Whilst this paper discusses just transitions and its implications for the workforce, it also encompasses other aspects relating to the distributional impacts of low-carbon transitions, such as the effects on poorer households of removing fossil fuel subsidies, the implications of lost fossil fuel related revenues for particular countries and regions, the potentially adverse consequences of the rapid deployment of low-carbon technologies for some communities, and issues concerning the potential decline of regions which are heavily dependent on carbon-intensive industries.

2 Which groups, sectors and regions are potentially vulnerable to low-carbon transitions?

Initial analysis of who could be vulnerable to low-carbon transitions indicates that specific socio-economic groups and sectors that could be adversely affected include: poor and middle income households facing higher energy and food prices; energy-intensive and trade-exposed regions and countries; and workers in high-carbon industries and supply chains, including fossil fuel industry workers and their communities as these fuel sources are phased out.

In terms of employment, it has recently been estimated that in a low-carbon transition consistent with a 2°C climate target, changes in energy production and use would lead to the loss of 6 million jobs globally by 2030 as well as to the creation of 24 million new jobs globally, compared to a "business as usual" pathway[5]. However, not all regions would see net job creation, with the Middle East and Africa experiencing net job losses of over 300,000 jobs each if their economic structure stays in line with historical trends[5].

Low-carbon pathways modelling suggests that different regions could face very different mitigation costs in a 2°C scenario, with fossil-fuel exporters (Middle East OPEC, Soviet Union and Former Soviet States of Central Asia) particularly affected[6]. In addition, several regions would hold "unburnable" carbon fuel reserves (by which is meant they could not be exploited in a manner consistent with climate goals), with one analysis indicating that in a 2°C scenario

the Middle East could carry over half of the unburnable oil and gas globally, and the former Soviet Union a third of the globally unburnable gas, even when carbon capture and storage technology is assumed to be available from 2025[7]. The decline of the coal sector could also have regional consequences. For example in India, royalties from coal make up almost 50% of revenues for some states[8].

In addition to the possible consequences for fossil fuel intensive sectors, regions, and those dependent on fossil fuel extraction and use, it has been recognised that low-carbon technologies can themselves be the source of injustice. Examples include: the corporate takeover of community based renewables investment in one region in Germany, leading to the disenfranchisement of those local community groups that initially supported such schemes[9]; poor working conditions in the Brazilian biofuels industry[10]; health problems caused by toxic wastes from semiconductor manufacture that is central to the solar PV industry[10]; and the dispossession of vulnerable communities from their land in an Indian state, as part of a large solar park development[11]. Such examples have led to the assertion that replacing fossil fuels with low-carbon energy sources will not in and of itself address environmental injustices, including the inequitable distribution of environmental hazards and the lack of political influence of communities affected by these new sources.[12]

3 What can industrial and other transitions teach us about supporting vulnerable groups?

There is an expanding literature on the measures and circumstances that have been successful in mitigating the adverse impacts on specific industry sectors, often of a fossil fuel intensive nature. For example, one account of the West German Ruhr region's fundamental change from a coal and steel-based economy to a knowledge-based service economy details the central importance of "socially responsible downsizing practices" including: worker redistribution between jobs, shifts and sites; early retirement support; and worker retraining and development programmes. Such initiatives were made possible through co-operation between government, municipalities, employers and trade unions, with a clear vision of the future, supported by a comprehensive policy framework[13]. Other examples of successful transitions from coal include Ontario, Canada's coal phase-out, completed in 2014. A number of factors contributed to this success, including: cross-party political support for the phase out, largely on the basis of local air quality concerns; the fact that the Ontario government could absorb the cost of the phaseout as the plants were publicly owned; and a long-term vision and gradual implementation, including broad-based consultations with multiple stakeholders from civil society, municipalities and industry[14]. Numerous just transitions initiatives and taskforces have now been established, including in New York[15], Scotland[16], and New Zealand[17].

Other examples of energy transitions which incorporate support for vulnerable groups include the removal of fossil fuel subsidies in some regions. For example, as part of its Structural Adjustment Programme, Ghana's government began removing petroleum subsidies from 2005, with compensating measures aimed at the poorest members of society including: eliminating fees for attendance of primary and junior schools; increased funding for health care, urban public transport and rural electrification; as well as a 20% increase in the minimum wage[18].

Outside of the energy sector, there are numerous examples of policy design to achieve transitions in which there is some mitigation of the negative consequences for affected groups. For example, one analysis of the history of free trade agreements notes that "gradualism" in the introduction of trade liberalisation has been important in minimising adjustment costs and welfare losses[19]. Other principles in free trade agreements include "reciprocity" (i.e. that if one country opens up to trade from another, then it will benefit from that country also opening its borders to trade), "reversibility" (which in the GATT/WTO framework allows the reversal of agreements in light of unexpected economic disruption from for example surges of imports), and labour market adjustment policies, with the literature suggesting that well-designed combinations of policies and measures such as unemployment benefits and retraining policies are the most effective at minimising the adjustment costs resulting from trade liberalisation[19].

A further, relevant, example of transitions (this time referring to one gathering pace) is the current move towards increased automation and use of artificial intelligence across many economic activities, with some analyses estimating a significant number of job losses over the coming years[20], although others have asserted that there will also be significant economic benefits and job creation opportunities from this transition. Proposed measures to mitigate adverse impacts include models to spread the ownership of capital more widely[21], development of targeted strategies (such as financial and psychological support) for those likely to be affected, adjustments to the education system to achieve adaptability in training in the context of the coming developments, and exploration of alternative income and taxation models and welfare policies[22].

4 Actions to mitigate the adverse impacts of the low-carbon transition

A number of case studies, including those just cited, highlight some common features of relatively successful transitions. These features include:

- Early implementation of policies and strategies to enable a manageable decline of industries, supported by a long-term vision to support the growth of new industries.
- Close collaboration and social dialogue between central governments, local government authorities, businesses and labour unions, to ensure procedural justice and buy-in from the

major transition stakeholders. Several countries already require such agreements by law or via collective bargaining agreements.

- Social protections such as wage guarantees, pension rights, healthcare benefits and in some cases cash transfers and early retirement packages to mitigate workers' economic losses in the short-term.
- Government and business investment in infrastructure, skills and retraining for affected workers as well as establishment of alternative industries to prevent industrial decline over the medium term.
- Government and business investment in education and innovation, including in universities and technical schools, to support new industries that contribute to long-term regional growth and prosperity.

The International Labour Organisation's guidelines, negotiated by over 160 governments, employer organisations and unions, are intended to be the precursor to a global labour standard to be negotiated in 2022, and contain principles that constitute one widely-agreed aspect of justice for workers in the low-carbon transition:

- Local communities and unions have a key role to play in the shift to a low-emission climate-resilient economy, including identifying activities that can substitute the declining high-carbon ones.
- An active social dialogue is necessary between unions, employers, and local or central government.
- The transition needs to be anticipated years in advance in order to facilitate retraining and mobility plans.
- High-level policy and corporate commitments are vital, including funding commitments.
- Overall coordination, co-operation and trust among stakeholders is crucial.

However, there is a need for more concrete applications of the ILO guidelines, producing more examples of how Just Transition principles are put to work in different political, social and economic contexts, including those in which workforces may have limited or no union representation or bargaining power. It is also important to note that even just, well-managed transitions are not pain-free, since they are likely to include job losses and the uncertainty that comes with industrial closures.

In addition, further work is required to understand the wider distributional implications of low-carbon transitions. This includes: a more thorough understanding and evaluation of the costs and benefits of these transitions; of the forms of governance in different countries and contexts that ensure that governments have appropriate mechanisms to manage and oversee

transitions; and of which industries and sectors, and which agents within these sectors, to support through transition policy.

5 Conclusions

We already have significant insights and knowledge on the potential adverse impacts of low-carbon transitions, and the policies and measures necessary to mitigate these impacts. Nevertheless, there remains a need for proactive identification and analysis of the nature and distribution of impacts from low-carbon transitions, on specific regions, sectors, workers and communities, and of how they can be addressed by state, market and civil society actors and communities in specific regions, taking into account their specific economic and political contexts.

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