

Just Transitions and the Fossil Fuel Phase-Out

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4 W's

- ❑ Why is just transition important?
- ❑ What scale of intervention is required?
- ❑ What are the key elements of a just transition?
- ❑ What is the role of RE jobs in a just transition?

ipcc

INTERGOVERNMENTAL PANEL ON climate change

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

Summary for Policymakers

Net zero emissions by 2050 means fossil fuels need to decline rapidly



**Energy system
transitions**



**What will happen to the
livelihoods of millions of
fossil fuel workers, and their
community members?**

Why should we care?

Just Transition

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JUST TRANSITION DECLARATION

Considering the social aspect of the transition towards a low-carbon economy is crucial for gaining social approval for the changes taking place. emissions will face social resistance and significant political risks for the governments implementing them if they are not accompanied by social workers whose jobs will be lost or transformed. For these reasons, the issue of fair transition is a vital issue for governments, social partners and organisations.

❑ From a justice point of view it's important to think about fossil fuel workers and their communities

❑ Just transition endorsed by:

❑ ILO

❑ UNFCCC

❑ World Bank

US presidential election 2016



“...I’m the only candidate who has a policy about how to bring economic opportunity using clean renewable energy as the key into coal country.

Because we’re going to put a lot of coal miners and coal companies out of business, right?”

—
At a town hall meeting in Ohio in March 2016

Later admitted in her book that this was the biggest **regret** of her campaign ☹️

US presidential election 2016



President Trump promised to bring back coal jobs and won almost all major coal states

After winning, he reversed pro-climate policies

What is at risk regionally?

Jobs & Pensions

Direct jobs = 12 million

Indirect jobs

Induced jobs

Informal/artisanal mining
jobs

Pensioners

Local Government Revenues

Various taxes

Royalties

Welfare Spending

Corporate social
responsibility

Mineral funds



Entire families are involved



Kids help their parents scavenge coal from nearby abandoned mine sites and/ or rejected coal

Millions of people work in the informal sector

- ❑ Coal cycle wallahs transport 150-450 kg of coal on their bicycles to cities, travelling up to 60 km
- ❑ Earn \$3-\$6 USD per trip





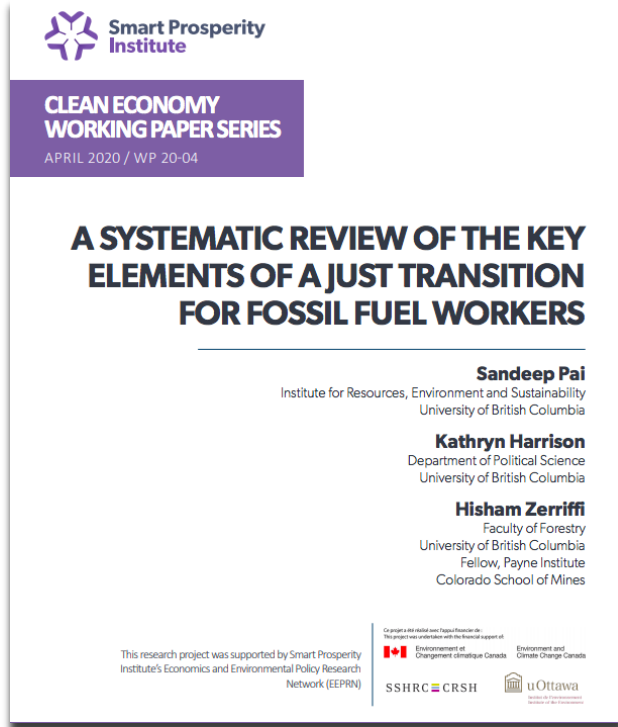
Suresh Bhuiyan, a coal worker

“The coal industry is dirty, and I am dying a slow death living here. But I have no other option.”

“If I got the opportunity, I would love to work in the solar industry, but how will I find a job? My present is painful, but the future is uncertain.”

Pai & Carr-Wilson, Total Transition: The Human Side of the Renewable Energy Revolution

Analysis of Academic/Policy Literature on “Just Transition”



Elements identified	Justice forms	Space	Time	Sources
Long-term planning	R2	National & state/provincial level	Long-term	(Snell, 2018), (Snyder, 2018), (Weller, 2019), (Rosemberg, 2010), (Eisenberg, 2019)
The role of unions	P	National & state/provincial & local level	Long-term	(Cha, 2016), (Abraham, 2017), (Stavis & Felli, 2015)
Community engagement	P	Local level	Long-term	(Eisenberg, 2019), (Goddard & Farrelly, 2018), (Rosemberg, 2010), (Snell, 2018), (Weller, 2019)
Local jobs and diversified economies	D, R2	Local level	Long-term	(Carley et al., 2018), (Olson-Hazboun, 2018), (Prinz & Pegels, 2018), (Rosemberg, 2010), (Snell, 2018), (Snyder,

**What is the role of renewable energy jobs
in a just transition?**

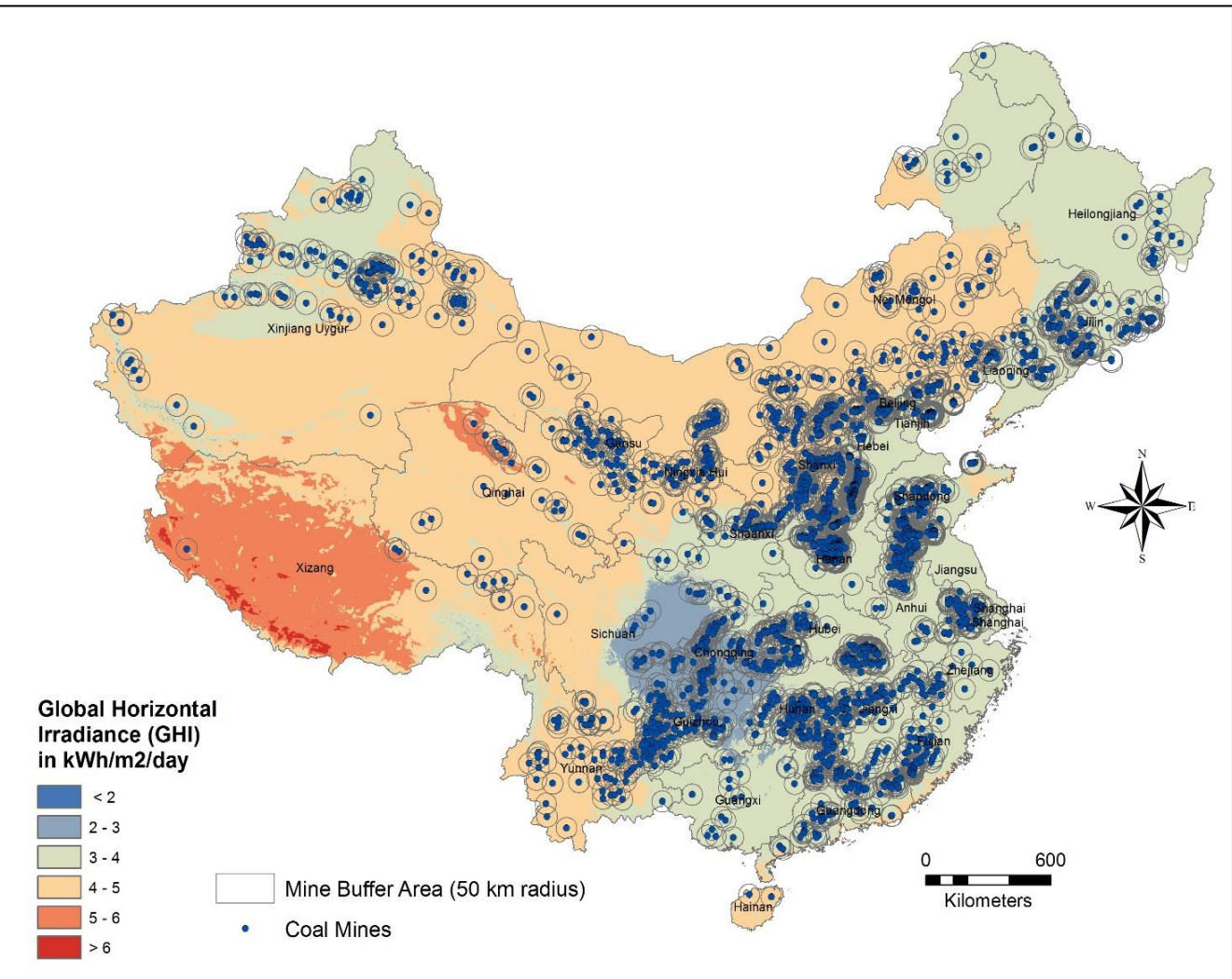
Climate Mitigation → More Energy Jobs



- ❑ We estimate (current jobs)
 - ❑ 17 million direct energy jobs
 - ❑ Almost 12 million in fossil fuel industries

- ❑ We estimate (2050)
 - ❑ Current NDC policy: 21 million [18-21]
 - ❑ Well below 2°C : 26 million [21-27]
 - ❑ Manufacturing solar/wind will create large numbers of jobs

Coal Mining Areas Not Always Suitable for Solar/Wind Power



Country	Solar capacity required (Gwe)	% area for solar	Wind capacity required (GWe)	% area for wind
China	5.73	29%	7.5	5%

(Pai, Zerriffi, Jewell & Pathak, 2020, Environmental Research Letters)

Take Home Messages

- ❑ Just transition requires governments phasing out fossil fuels to develop concrete plans in consultation with affected communities
- ❑ Need for more nuanced research & advocacy on just transitions in fossil fuel producing countries
- ❑ Meeting Paris climate goals will create more jobs than today
- ❑ Renewable energy jobs could be an option for some fossil fuel workers but not for all

Thank you & Questions

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My book: **“Total Transition: The Human Side of the Renewable Energy Revolution”**