

The UN Climate Change Summit, Climate Emergency, Emissions Reduction and International Trade in Coal: Problem-Solving, R&D, Equity and the Paris Agreement

Dr Ted Christie, Updated 07 October 2019



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KEY POINTS

- 1. National action plans to reach carbon neutrality by 2050 provided at the UN Climate Change Summit 2019 by most of the world's largest emitting economies "fell woefully short" of enhancing their ambition.**
- 2. The 185 Parties that have now ratified the Paris Agreement have an obligation to respect, promote and consider intergenerational equity under the Paris Agreement: This should be a non-negotiable bottom line for all national action plans.**
- 3. A key concern raised at the Summit by the UN Secretary-General related to the need to strategically plan for the future use of fossil fuels and coal-generated energy.**
- 4. A new UN treaty is needed to complement the current climate change treaties with new commitments to ensure that the international trade in coal does not pose an unacceptable risk for transitioning to the goal of net zero emissions by 2050.**
- 5. For the Paris Agreement to be implemented in a manner to reflect equity - and for emission reductions to be undertaken on the basis of equity - will require pathways and actions that promote fairness and justice.**
- 6. To evaluate whether coal will pose an unacceptable risk to secure the future by reaching the goal of net zero emissions by 2050, fairness and justice will prevail if decision-making is based on the best available, relevant and reliable scientific evidence.**
- 7. Global R&D into CO₂ removal strategies needs to be accelerated for it to be the source of scientific evidence for effective decision-making on the key issues confronting the future of coal - within UN timelines for reaching the goal of net zero emissions.**

8. As a variant of the “polluter pays principle”, funding for this global R&D would be a key commitment in any “International Trade in Coal Treaty”. A levy would be paid on each tonne of coal either exported or imported by each country. The levy would be applied to fund R&D throughout the globe in areas defined and managed by the IPCC.

Overview

Recent events, both globally and within Australia, emphasize that existing national plans for action are not sufficiently ambitious to effectively address the global climate emergency and for implementing the Paris Agreement goals.

There were two significant events over the period 20-23 September 2019 that resonate with this observation.

The Youth-Led Global School Strike for Climate: 20 September 2019

This strike may well be remembered as the [largest ever global demonstration in the fight against climate change](#) in the earth’s history.

The day of global climate strikes was inspired by a 16-year-old Swedish environmental activist, Greta Thunberg. Masses of young people around the world, anxious about their future on a hotter planet, skipped school and poured into the street on every continent.

Their protests reflected their anger at world leaders for failing to take real and effective action to address the climate emergency.

[There were large rallies in Australia](#): Estimates of "well over" 300,000 Australian school and university students, families and workers turned out at more than 100 cities and towns to protest. The biggest turnout - 100,000 people - was hosted in Melbourne; 80,000 rallied in Sydney and 30,000 in Brisbane.

Comment:

When taking action to address climate change, the 185 Parties that have now ratified the Paris Agreement have an obligation to respect, promote and consider intergenerational equity¹. This should be a non-negotiable bottom line for all national action plans.

The bottom line: Inter-generational equity is at the heart of youth concerns.

*A goal of inter-generational equity
is to ensure actions undertaken under the climate change treaties
enable our children and grandchildren
the right to inherit the same diversity
in natural and cultural resources
enjoyed by previous generations;
and to have equitable access to the use and benefits of these resources.*

The United Nations Climate Change Summit: 21-23 September 2019

The [UN Climate Change Summit](#), convened by UN Secretary-General António Guterres in New York, commenced the day after the global climate strike. The Summit's goals were:

- *To meet the urgent need to address the global climate emergency, boost ambition for climate action and accelerate actions to implement the goals of the Paris Agreement.*

However, the national action plans provided at the Summit by leaders of the world's largest emitting economies to deliver a secure future and to reach carbon neutrality by 2050 were not developing fast enough to match the evolving climate crisis: ***["Most of the major economies fell woefully short"](#)*** of enhancing their ambition.

But what the Summit highlighted was the need for science to prioritize R&D and to focus on the evaluation and application of carbon dioxide removal technologies to enable national CO₂ emission reduction targets in action plans achieve carbon neutrality by 2050.

Comment:

The inter-dependence between the Summit and the strike leads to one inescapable conclusion: The need to accelerate action for the climate crisis!

*More than ever,
a problem-solving vision is needed and
for the UN to “keep pushing” for greater ambition and action
from the world’s largest emitting economies
to secure the future by reaching carbon neutrality by 2050.-
consistently with their obligations imposed by the Paris Agreement.*

COAL: A Priority Area for National Action Plans & the Climate Crisis

A key concern raised at the Summit by the UN Secretary-General related to the need for larger nations to expand their ambitions and to strategically plan for the future use of fossil fuels and coal-generated energy. For example, by seeking new commitments to cut their emissions, halting construction of coal-fired power plants and scaling back or ending fossil fuel subsidies.

*The issue of identifying new pathways and practical actions by 2050,
for the future of coal, should be considered
within the framework of the following facts: -*

- Coal currently supplies around **38% of total global electricity**. In 2040, it will still be the largest single source of **electricity generation at 26%**.
- The global average annual atmospheric concentration of CO₂ in 2018 averaged 407.4 ppm. **The International Energy Agency** (March 2019) “found that CO₂ emitted from coal combustion was responsible for over 0.3°C of the 1°C increase in global average annual surface temperatures above pre-industrial levels. This makes coal the single largest source of global temperature increase”.
- At the Summit, concern over the large number of coal power plants, still projected to be built, was raised as a looming global threat.

*Polarised global opinion for the future of coal, since Kyoto,
has ignited conflict and divergent positions
between competing climate change interests: -*

1. **The immediate shut down of all coal plants and to leave most existing reserves in the ground.**

Rationale: Because of concern over potential significant environmental and economic impacts from climate change which will have lasting consequences for future generations; and

2. **Extraction and burning of coal to continue as has been done in the past.**

Rationale: Because of the need for coal by many major emerging economies to provide reliable energy for rapidly growing populations in pursuit of economic development and poverty eradication.

Comment:

The challenge for the UN is how to promote and deliver new pathways and practical actions to “*shift global response into higher gear*” which will reduce CO₂ emissions to essentially zero by mid-century.

Given energy is an intrinsic component for a sustainable future, this will require creative solutions for new pathways and practical actions to address the future for coal.

This issue is crucial for the international trade in coal as global CO₂ emissions are indirect or direct impacts caused by the export and import of coal.

International Trade in Coal and UN Climate Treaties: *The Scope for a Parallel with Global Biodiversity Conservation?*

*Could a pathway to boost ambition for climate action
within the framework of the Paris Agreement goals
be adopted for coal-generated power and the international trade in coal,
based on the UN model*

for addressing another major global environmental problem:

The conservation of biodiversity?

***Two linked UN International Treaties,
having quite different goals, exist.***

The ***Biodiversity Convention (1992)*** focusses on management measures taken by UN Parties for the conservation of endangered species whilst allowing for sustainable use of the components of biodiversity.

The complementary UN treaty for biodiversity conservation aims to ensure that international trade does not risk the survival of wild animals and plants: ***Convention on International Trade in Endangered Species (1973)*** .

In an article posted on [***Independent Australia in April 2013***](#) by the author, the following pathway was proposed for the future of coal and coal-generated power, as a complement to the UN climate change treaties.

- ***The existing UN climate change treaties (UNFCCC, Kyoto Protocol and the Paris Agreement) focus on management measures to reduce emissions.***
- ***Introducing a new treaty to complement the climate change treaties with new commitments to ensure that the international trade in coal does not pose an unacceptable risk for transitioning to the goal of net zero emissions by 2050.***
- ***A further commitment under such a treaty could be imposed on coal exporting countries to ensure that coal mining development proposals do not have adverse impacts on sustainability and national food security.***

One possible example for a key commitment in any “*International Trade in Coal Treaty*” would be for each country to pay a levy² on each tonne of coal they either exported or imported: A levy which would be applied to fund climate change R&D throughout the globe in areas defined by science, such as: -

- (i) *Development of environmentally sound low-carbon technologies e.g. Carbon capture, utilization and storage (“CCUS”) technology; High-efficiency advanced ultra-supercritical steam power plants; supercritical carbon dioxide plants...*
- (ii) *Developing sustainable technologies for renewable energy, combustion, next-generation solar photovoltaic, novel energy storage technologies...*
- (iii) ***“[**Carbon Dioxide Removal Strategies**](#)”*** e.g. *Soil carbon sequestration; Afforestation and reforestation; Bioenergy with carbon capture and storage; carbon mineralization; direct air capture; enhanced weathering; ocean fertilization...*

(iv) *Clean Development Mechanisms in developing countries by enabling investment in sustainable development projects that reduce CO₂ emissions.*

Conclusions: *The Cornerstones for a UN Treaty Pathway*

(i) **The Preamble of the Paris Agreement “notes the importance for some of the concept of ‘climate justice’, when taking action to address climate change”. The Paris Agreement also requires implementation of the Agreement “to reflect equity” – and for emission reductions to be undertaken “on the basis of equity” ...: Articles 2.2 and 4.1. “Equity” is a relevant consideration for achieving climate justice.**

Applying equity as a “fair treatment” guideline to achieve climate justice should mean that no country that has ratified the Paris Agreement should bear a disproportionate share of the negative environmental consequences – ecological, economic, social, cultural - from actions and measures taken to reach net zero emissions by 2050.

*Equity and climate justice should be seen as cornerstones for objectively evaluating the key issue determining the future use of coal-generated energy: **Whether coal will pose an unacceptable risk for transitioning to the goal of net zero emissions by 2050?***

The plain and legal meanings of ‘equity’ are similar: “fairness”, “justice”.

For the Paris Agreement to be implemented in a manner to reflect equity - and for emission reductions to be undertaken on the basis of equity – will require pathways and actions that promote fairness and justice.

To evaluate whether coal will pose an unacceptable risk to secure the future by reaching the goal of net zero emissions by 2050, fairness and justice will prevail if decision-making is based on the best available, relevant and reliable scientific evidence.

The goal of the levy is to accelerate global R&D for it to be the source of scientific evidence for decision-making on the key issues confronting the future of coal - within UN timelines for reaching the goal of net zero emissions.

Under this pathway, the “International Trade” Treaty’s research levy, climate change R&D and equity are interdependent and mutually supporting.

(ii) A key concern raised at the Summit by the UN Secretary-General related to global climate emergency issues. Larger nations needed to expand their ambitions with new commitments to cut their emissions and to strategically plan for the future use of fossil fuels and coal-generated energy.

But are there more equitable options for to addressing these issues other than only involving larger nations?

An alternative model - based on the “polluter pays” principle - posted by the Author, would be to focus, not simply on the “larger nations” or on the “developed-developing country” divide – but on the “key nations” that export and import coal that are also the major contributors of global CO₂ emissions. For example:

- In 2013, the world’s top seven countries that exported coal - together with the top seven countries that imported coal – contributed 63.7% of global CO₂ emissions.*
- The top 7 countries that exported 1193 Mt of steam and coking coal in 2013 contributed 26.9% of global CO₂ emissions.*
- The top 7 countries that imported 998 Mt of steam and coking coal in 2013 contributed 36.8% of global CO₂ emissions.*

This model warrants consideration for its global application at COP25, Santiago, Chile commencing with an update for historic contributions of global CO₂ emissions up to 2018.

END NOTES:

¹ Preamble to the Paris Agreement.

² The R&D research levy proposed on global exporters and importers of coal has its basis from agricultural R&D in Australia, post-World War II.

Australian primary producers – wool, beef and lamb, wheat, sugar-cane, coarse grains... - were all levied on the market value of their annual farm or property production. The funds levied were then made available to research organizations (Federal, States, Territories, Universities) for R&D.

The outcome from this pathway was for Australia to punch well above its weight, internationally, by being highly competitive in agricultural and livestock exports – in an era of limited free trade agreements.