

Global Energy Demand Conflicts: Public Participation and Sustainable Development - the Elephant in the Room?
Part 2: Sustainable Development & the Paris Accord Rule Book

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Coal now accounts for 27% of global primary energy demand and is the second most important source of primary energy

Fossil fuels are the single biggest source of GHG emissions emitted by human activities at the global scale. Carbon dioxide emitted from fossil fuel and industrial processes contributes 65% of global GHG emissions.

The IPCC AR5 Synthesis Report (2014) concluded that the window for climate action is rapidly closing: Over the period 1870-2011, 65% of the global carbon budget compatible with a 2°C goal, has already been used.

Australia was the world's largest exporter of coal in 2016.

These facts have contributed to the emergence of two polarised positions; positions that represent each end of the spectrum for the future of coal.

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

Energy is an intrinsic component for a sustainable future. Complying with [Paris Agreement](#) obligations are paramount. What must coal do under Paris to remain as part of the future global energy sector?

Paris trajectories have set the world on a course towards sustainable development limiting warming to 1.5° C to 2° C above pre-industrial levels.

The heart of the Paris Agreement are the *pledges* called **Nationally Determined Contributions (NDCs)** put forward by each country: NDCs are positive commitments for climate action in which countries outline how they will meet the Paris Agreement’s long-term temperature targets.

The [World Coal Association](#) notes 24 countries have identified a role for low emission coal in their climate *pledges* as a way of working towards their Paris Agreement targets. Collectively, these countries are responsible for more than 50% of global emissions

Comment

For coal to be part of the solution for the challenge of climate change, the NDCs of these 24 countries must do enough to limit or reduce their collective carbon emissions to curb warming to 2°C above pre-industrial levels.

But, at this stage, implementing the Paris Agreement to ensure this temperature target can be achieved is, at the very least, problematic. This is as much a problem for coal as it is for all 176 parties that have ratified Paris.

For the NDCs of each country to be a positive action to curb warming to 2°C above pre-industrial, there needs to be consensus agreement - by all Convention parties - on the guidelines/methodology that must be adopted to guide each country to develop and evaluate their NDCs.

A review of the outcomes from the Bonn Climate Change Conference (April 2018) highlights why this is a problem for implementation of the Paris Accord.

The Paris Accord “Rule Book” – Process & Methodology From Bonn, April 2018 to COP24 Katowice, December 2018

The Paris Agreement will be implemented by developing a practical and technical operating manual to guide climate pledges: *The Paris “Rule Book*.

The Rule Book will set out a [plan to monitor and verify the pledges](#) made by nearly 200 countries to reduce GHG emissions.

However, progress in developing the Rule Book to guide pledges, encountered difficulties at the Climate Change Conference held at Bonn in April 2018. **Divergent national opinion remained unresolved** over the following issues which limited negotiating outcomes:

- *Should there be a single set of rules for guidance that applied to all parties?*
OR
Should there be two sets of rules, with the suggestion that differentiation be based on historic responsibility for climate change?
- *Must NDCs be quantifiable with metrics, such as absolute emissions reductions?*
- *Should pledges be “nationally determined” in form, as well as content?*

But there is a further dimension for the efforts taken by each country to limit or reduce emissions in their NDCs to curb warming, to consider:

*Under the Paris Agreement
emission reductions are required to be undertaken
on the basis of equity -
as well as in the context of sustainable development
and efforts to eradicate poverty.*

Comment

The difficulty encountered at Bonn, in failing to negotiate agreed guidelines for some key elements of the Paris Rule Book, should be a warning for what lies ahead i.e. to develop guidelines for evaluating the far more complex, multi-faceted scientific concept of sustainable development.

The Paris Agreement obligations for emission reductions, equity, sustainable development and poverty eradication must be evaluated together i.e. as commitments for climate action each country will take to meet the Paris Agreement’s long-term temperature targets. A problem-solving pathway to follow should focus on their integration – not assessed as four discrete “silos”.

Achieving sustainable development is a significant challenge for the entire coal value chain. Not only for the adoption of clean coal technology to reduce or limit emissions; but also, for future coal production and the need for new mining developments that acquire and use natural resources to extract coal

Sustainable Development and the UN

The global origin for the wider meaning and applications of sustainable development was 1987: The release of *Our Common Future* by the World Commission on Environment and Development (the “Brundtland Report”).

From 1987, UN directions built on this foundation – initially, through international environmental declarations in 1992 e.g. the *Rio Declaration on Environment and Development* which specified 27 universally applicable principles to facilitate international action for sustainable development; and *Agenda 21* and its global plan of action for sustainable development based, to a large extent, on the Rio Declaration principles.

Obligations to promote sustainable development then became a constant obligation imposed under all three UN Climate Change Treaties: See *UNFCCC (1992)* Article 3.4; *Kyoto Protocol (1997)* Articles 2.1, 10; and *Paris Agreement (2015)* Preamble and Articles 2.1, 4.1.

A major step to address the global challenge of climate change for sustainable development was reached by the UN General Assembly on the 25 September 2015: [*Transforming our World: 2030 Agenda for Sustainable Development*](#) [the “2030 Agenda”] with its 17 interrelated **Sustainable Development Goals** (SDGs). The [**SDGs**](#) (or “Global Goals”) are a universal call to action to end poverty, protect the planet and ensure all people enjoy peace and prosperity.

How is Sustainable Development to be Evaluated?

A problem for moving to a low-carbon, climate-resilient future is how to evaluate sustainable development?

Finding sustainable solutions requires the multiple and competing objectives of sustainable development – *ecological, economic, social (including cultural)* - to be assessed and balanced, **equitably**.

Equity is an obligation under both the Paris Agreement and the concept of sustainable development. It ensures outcomes achieved minimise the extent to which environmental costs and benefits are shared disproportionately – in the case of climate change - between all 197 Parties to the UNFCCC.

Multi-objective analysis (sometimes called “*Multiple Criteria Decision Aid Methodology*”) is an accepted methodology to aid decision-making to resolve public sector problems involving multiple and competing objectives *e.g. water resources, energy, environmental policy*.

Multi-objective analysis has its basis in principles and concepts from both environmental planning and science and conflict resolution.

To read more on the cornerstones of the multi-objective analysis methodology, click on the following [LINK](#)

Evaluating Sustainable Development: Problem-Solving Pathways

The global dimension and impacts of climate change poses complex, difficult issues for sustainable development – in terms of time, scale, extent, and risk.

However, the **cornerstones** for the pathway to conflict resolution remain the key to success: ***The multiple and competing objectives of sustainable development must all be assessed and balanced, equitably: -***

- **Ecological** *e.g. emission reduction targets;*
- **Economic** *e.g. affordable and reliable electricity;*
- **Social** *e.g. protecting the most vulnerable; and*
- **Cultural** *e.g. providing financial and technology capacity-building support for developing countries to develop their NDCs.*

*Two alternative multi-objective pathways
are compared for their potential as a guideline
in the Paris Rule Book
to implement the sustainable development obligation
of the Paris Agreement*

(a) ‘Transforming our World: 2030 Agenda for Sustainable Development’

The aim of SDG 13 is to ‘*Take urgent action to combat climate change and its impacts*’. SDG 13 has a framework of **five targets**¹. The **five targets** are equivalent to the **objectives** of Multi-objective methodology.

Two problems for methodology can be identified for SSG13 – problems which must be resolved by the Paris Rule Book.

☒ The sustainable development framework under SDG13 and its Targets does not necessarily resonate with the universally applicable principles to facilitate international action for sustainable development, as set out in the *Rio Declaration on Environment and Development and Agenda 21*.

☒ The 2030 Agenda acknowledges that “*It is important to recognize the link between sustainable development and other relevant ongoing processes in the economic, social and environmental fields*” (At para.55).

However, the five targets defined in SDG13 are not clearly categorized under specific fields of ‘economic’, ‘social’, ‘cultural’ or ‘environmental’.

It is unclear how this “sustainable development link” will be achieved under SDG13. The uncertainty that arises creates a significant problem for achieving sustainable development.

(b) The Environmental Science/Planning Multi-Objective Model

The following examples of multiple objectives² for achieving sustainable development have been framed by the author.

The examples are based on decisions and recommendations arising from past UNFCCC Conferences and publications; as well as the *Rio Declaration on the Environment and Development and Agenda 21*.

In 1992, these two global environmental treaties acknowledged that we should no longer think of environment and economic and social development as isolated fields on issues such as global climate change.

The treaties contain principles on which nations can base their future decisions and policies, considering the environmental implications of socio-economic development.

The treaties also recognize the right to development must be fulfilled to equitably meet developmental and environmental needs of present and future generations.

Comment

A multi-objective framework for sustainable development for climate action should be based on “Global Objectives” i.e. common unifying objectives that applied to all UNFCCC parties.

The multi-objective framework could also incorporate specific “National Objectives” based on each party’s national interest i.e. by considering specific national and regional development priorities, objectives and circumstances.

CONCLUSION ~ Coal and a Sustainable Low Carbon Future: Co-existence or Conflict

1. Climate change and energy are not competing priorities.
2. Energy is an intrinsic component for a sustainable future. But, achieving sustainable development raises **two significant challenges** for the entire coal value chain. Not only for the adoption of clean coal technology to reduce or limit emissions; but also, for future coal production and the need for new mining developments that acquire and use natural resources to extract coal.
3. In transitioning to a low-carbon future, **one challenge** is to ensure that the international trade in coal does not pose an unacceptable risk for achieving the 2^o C long-term temperature target of the Paris Agreement?
4. For economies that are industrialising and urbanising at a rapid rate, a **further challenge** is whether the use of modern low emission coal technologies will provide an opportunity for these countries to improve energy access through affordable, reliable electricity – and not compromise achieving the Paris 2^oC temperature target?
5. Both challenges resonate with the need to integrate ecological, economic, social and cultural objectives – and to not focus on one objective only e.g. “ecological” to limit CO₂ emissions.
6. Finding sustainable solutions requires the multiple and competing objectives of **sustainable development** – ecological, economic, social and cultural - to be assessed and balanced, **equitably**.
7. Two models are critiqued for achieving this goal: **SDG13-Climate Action** of the UNs 2030 Agenda and **Multi-Objective Analysis**.
8. Sustainable development is the elephant in the room. The Paris Rule Book does not provide any guidance for sustainable development for climate pledges. This is as much a problem for coal as it is for all UNFCCC parties.

End Notes

¹ **SDG 13 Targets: UNs ‘2030 Agenda for Sustainable Development’**

SDG13 Target 13.1

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

SDG13 Target 13.2

Integrate climate change measures into national policies, strategies and planning.

SDG13 Target 13.3

Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

SDG13 Target 13.a

Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible.

SDG13 Target 13.b

Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

² Application of the Environmental Science/Planning Multi-Objective Model

I Ecological Objectives

(a) To ensure that the reductions in collective carbon emissions in all NDCs are effective in stabilizing atmospheric CO₂ concentrations at a level that complies with the temperature targets of the Paris Agreement: To hold the increase in global temperature rise to well below 2°C above pre-industrial levels; and to pursue efforts to limit the increase to 1.5°C: &

(b) “Green growth that is efficient in its use of natural resources, clean in that it minimizes pollution and environmental impacts, and resilient in that it accounts for natural hazards and the role of environmental management and natural capital in preventing physical disasters”.

II Economic Objectives

(a) To enhance and promote the cost-effectiveness of mitigation and adaptation measures to reduce CO₂ emissions whilst ensuring that these measures do not aggravate existing inequities within and across Parties to the Paris Agreement.

(b) To develop a strong, growing and diversified economy together with maintaining and enhancing international competitiveness that enable economic development to proceed in a sustainable manner.

III Social Objectives

(a) To minimize the extent environmental costs, economic benefits and energy security are shared disproportionately between all Parties to the Paris Agreement (“*climate justice*”); &

(b) To protect the most vulnerable, alleviate poverty and create a future with prosperity for all.

IV Cultural Objectives

(a) To provide financial and technology capacity-building support for developing countries for preparing their NDCs to reduce CO₂ emissions for moving to a low carbon, climate-resilient future and for achieving sustainable development; and

(b) To provide funds for vulnerable developing countries through an “Environmental Performance Bond” to cope or to adapt with any projected risks of climate change. If environmental damages occur, the bond would be used to rehabilitate or repair their environment.