The Challenge ~ Urgent Climate Action to Secure A Liveable and Sustainable Future In Accordance with Paris Agreement Obligations: *Must History Repeat*?

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> *"History matters because the cumulative amount of carbon dioxide emitted since the start of the industrial revolution is closely tied to the 1.2^{0}C of warming that has already occurred"*: ***Carbon Brief (2021)***
>
> *"Limiting warming to 1.5°C implies reaching net zero CO_2 emissions globally around 2050".* ***IPCC (2018)***

Emission reduction targets in *Nationally Determined Contributions* ("NDCs") provide the framework for national climate plans to achieve the Paris Agreement's long-term temperature goals.

The March 2023 Report of the ***Intergovernmental Panel on Climate Change* (IPCC)** raised significant concerns over NDCs and the likelihood for warming to exceed 1.5°C during the 21st century.

Avoiding 1.5°C was still possible – but subject to a qualification: No time should be lost to reduce emissions to secure a liveable and sustainable future for all: *To limit warming to 1.5°C, emissions must decrease now and be cut by almost half by 2030.*

However, similar concerns over NDCs had been raised in the past.

In 2018 the UN's Environment **"*Emissions Gap Report*"** warned that global CO_2 emissions had increased in 2017 after three years of stagnation: Urgent action by all nations to increase their NDC ambitions was needed to achieve the Paris 1.5^o C goal.

In 2022, the UN's Environment **"*Emissions Gap Report*"** found that based on current NDCs for all 193 Paris Agreement Parties, global emissions would increase by almost 11% by 2030, compared to 2010 levels.

It is difficult to understand why this concern and controversy for reducing emissions has persisted. Why should this be the case if successive NDCs prepared by each Party had complied with the following Paris Agreement obligation: -

Article 4.3 requires a Party's NDC to "reflect its *highest ambition,* reflecting its *common but differentiated responsibilities and respective capabilities, in the light of different national circumstances"* ['CBDR-RC principle'].

The Paris Agreement and the CBDR-RC Principle

In responding to the IPCCs 2023 Report,
the Paris Agreement's CBDR-RC principle
was identified by the ***U.N. Secretary-General, Antonio Guterres***
as a key driver for achieving net zero deadlines.

Two elements define the CBDR-RC principle: -

- A *common responsibility* for countries to protect the environment, or parts of it, at the national, regional, and global levels; and
- A *differentiated responsibility*, requiring each country to consider the different circumstances for its contribution to global temperature rise; and its technical and economic ability to prevent, reduce and control risks and impacts - in the light of different national circumstances.

Because of the wide disparity of national historical emissions, not all countries face the same level of national responsibility to reduce emissions to achieve the net zero goal.

Critics of the CBDR-RC principle claimed that the principle as one of the most contentious aspects of the climate regime since its inception. Interpretation of "*differentiated responsibility"* created information conflicts affecting the adoption of the CBDR-RC principle. In particular, controversy whether a level playing field existed for all countries in reducing emissions.

The Equity-CBDR/RC Principle Linkage

Understanding the application of Paris Agreement Article 2.2 is a relevant consideration to resolve the past controversy over the CBDR/RC Principle. Implementation of the Paris Agreement is required "*to reflect equity and the principle of common but different responsibilities and respective capabilities, in the light of different national circumstances*".

NDC emission reduction commitments must be based on the linkage between equity and the CBDR-RC principle – not as *alternatives* - as they are joined by the coordinating conjunction "*and*": Application of the linkage to achieve a level playing field was advanced prior to COP23 in 2017.

Basing NDC emission reduction commitments on the Paris Agreement obligation that links equity to the *CBDR-RC* principle not only would offset past controversy over the principle but would also be the cornerstone for reaching net zero.

- Equity is the cornerstone for achieving a level playing field for reducing emissions and ensuring climate justice.
- The CBDR-RC principle is the cornerstone for an NDC to reflect each country's highest ambition to reduce emissions.
- An effective equity/CBDR-RC linkage would minimise the extent to which environmental costs and benefits were shared disproportionately between all countries for reaching net zero: Climate justice.

The U.N. Secretary-General's Challenge: *A Conflict Resolution Perspective*

The U.N. Secretary-General outlined two challenges to tackle the '*climate change time bomb*': -

1. Leaders of developed countries must commit to reaching net-zero as close as possible to 2040; and
2. Leaders in emerging economies must commit to reaching net-zero as close as possible to 2050.

But there was a significant condition –
one crucial for equitable outcomes:
"Every country must be part of the solution.
Demanding others move first only ensures humanity comes last."

The application of unifying concepts from ***environmental dispute resolution*** would facilitate achieving an equitable outcome: *By involving all Paris Agreement Parties in a process of* ***shared responsibility and joint action*** *to find NDC solutions for net zero in which Parties have access to all* ***relevant and reliable information*** *- as well as an understanding of the scientific data.*

Relevant information would require an evaluation of each country's historical responsibility for cumulative global emissions and its contribution to global temperature rise for a defined baseline period e.g., industrial revolution-2022.

For example, the ***Carbon Brief analysis*** of national responsibility for historical emissions from fossil fuel, cement and LULUCF, from 1850-2021, identified the 10 top emitters for cumulative CO_2 emissions: *USA (20.5%), China (11.4%), Russia (6.9%), Brazil (4.5%), Indonesia (4.1%)*, *Germany (3.5%), India (3.4%), UK (3.0%), Japan (2.7%) and Canada (2.6%) - a total of 62%.*

The correlation between the national responsibility for historical emissions for each country and the extent of their emission reductions *e.g., to achieve a 50 percent cut in emissions by 2030,* would enable conclusions to be made whether NDCs were equitable and reflected the highest ambition to reduce emissions.

Conclusion: *Securing a Sustainable Future*

Finally, it must be recognized,
that NDCs are not simply about reducing emissions.
Achieving a sustainable future requires a global commitment
for NDCs to weight all three dimensions of sustainable development
- environmental, economic, and social – equally;
and to evaluate them in a balanced and integrated manner.