Zero Carbon Prosperity Workstream

Work Stream Concept Note & Agenda

Academic Pre-Conference Workstream Concept Note
April 24th-25th Santa Marta, Colombia

The workstream is organized by Jiahua Pan (HKUST-GZ), Courtney Howard (GCHA) and Jiaqi Lu (HKUST-GZ)

A zero carbon prosperity pathway can employ renewable energy, energy storage and flexible electricity systems to support economic prosperity, secure energy access, peaceful co-existence between nations, long-term wellbeing and human flourishing for all. Non-hydro renewable energy resources such as solar and wind are widely available and can be deployed more rapidly than fossil fuel infrastructure. Once they are installed, they can provide a stable flow of energy free from short term supply chain disruption. In recent years, renewable energy has become the dominant source of new electricity capacity worldwide, accounting for more than 90 percent of new global power capacity in 2024. In fact, about 91 percent of newly deployed renewable projects now produce electricity more cheaply than fossil-fuel alternatives, with solar power 41 percent cheaper and onshore wind 53 percent cheaper than the lowest-cost fossil generation. Clean energy supply chains also generate strong employment growth. Globally, 34.8 million people now work in clean energy sectors, compared with 32.6 million in fossil fuel industries. Together, these trends show that renewable-based energy systems can support sustained development, job creation, and improved wellbeing while providing a more scalable and resilient foundation for long-term prosperity. In this workstream, we invite you to:

- identify the different aspects and potentials of zero carbon prosperity
- build a strong coalition for zero carbon prosperity
- develop strategies for promoting zero carbon prosperity in global climate agenda

Draft Agenda

Section 1: 10:00 – 12:00, Friday April 24

Zero Carbon Prosperity: A conceptual framing

Opening Remark and Keynote Speech: Pan Jiahua

Keynote Speech: Mustafa Hyder

Keynote Speech: Courtney Howard

Q&A

Section 2: 14:00 – 16:00, Friday April 24

Round table 1: Zero Sum Game vs Zero Carbon Prosperity

Questions for discussion:

- What are the key elements for prosperity in the age of energy transitions?
- What is the single biggest barrier to scaling zero-carbon prosperity?
- Can the Global South countries industrialize without carbon? What are the challenges?
- What policy instruments actually work (carbon pricing, industrial policy, mandates)?
- What are the real bottlenecks? Grid, storage, or governance?
- What are the optimal configurations of centralized vs distributed energy systems for maximizing prosperity outcomes?
- How should countries prioritize centralized vs distributed systems?
- What are the existing pilot programs across the world?
- How do we build a strong coalition for zero carbon prosperity?
- How do we build a more inclusive climate economy for zero carbon prosperity?
- What are realistic timelines for transformation?

Section 3: 9:30 – 12:00, Saturday, April 25

Round table 2 (9:30 – 11:00): Approaches to Zero Carbon Prosperity

Questions for discussion:

- What are the knowledge gaps for zero carbon prosperity? And what should be the topic for next step of research?
- How do we break the path-dependence of the zero sum agenda in COPs?

- How do we mobilize resource for the zero carbon prosperity?
- How do we bring our message to Turkey and beyond?
- What role for international cooperation?

Brainstorm Section (11:00 – 12:00): Next step of the Conference on Transitioning Away from Fossil Fuels

- China Workshop and field visits to zero carbon prosumerage systems in 2026
- Next Academic Conference in 2027