Discussion: Legal, political and implementation challenges of the Paris Agreement on Climate Change

The Potential of Blockchain Technology to Enhance Climate Action

Alexandre Gellert Paris
Toronto, Canada, 24 June 2017
In 1992, countries adopted the United Nations Framework Convention on Climate Change (UNFCCC) as a response to the problem of global warming. Five years later, they adopted the Kyoto Protocol, which strengthens the Convention by setting legally binding emission reduction requirements for 37 industrialized countries. The ultimate objective of both treaties is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system.

In 1996, Governments decided to accept the offer of the German Government to locate the secretariat in the German city of Bonn. At the head of the secretariat is the Executive Secretary. This position is currently held by Patricia Espinosa Cantellano.
UNFCCC Secretariat – Facts and Figures

- Annual expenditures of approx. USD 115 million
- Supports up to 30,000 participants attending annual Conferences of Parties (COP)
- Coordinates the work of 15 constituted bodies and expert groups
- Coordinates and supports on average 375 side events and exhibits at COPs
- Organizes 80 conferences, workshops and meetings on average per year
- Hosts and administers a dozen official registries, databases and systems related to adaptation, mitigation and finance
- Strong social media presence: 270K follower @UNFCCC, 155K likes on Facebook
- 500 staff from 80 countries
- To date has assessed, processed and certified approximately 2 billion CDM Certified Emissions Reductions.
- Prepares around 450 UN documents and legal texts a year
The UNFCCC Secretariat

The UNFCCC secretariat is a UN agency whose mission is to **support cooperative action by States and non-State actors to combat climate change** and its impact on humanity and ecosystems. This is a contribution to a sustainable world and to realizing the vision of peace, security and human dignity on which the UN is founded.
UNFCCC Secretariat – The future post Paris

Objective of the Convention

Challenges

Maximizing impact:
Partnering with governments, the UN, civil society and the private sector for increased climate action

Operationalizing the Paris Agreement:
Supporting a complex regime

Responding to budgetary realities:
Delivering a growing number of tasks with limited core resources

Managing a top performing organization:
Maintaining an agile, innovative and attractive institution
The Paris Agreement
Parties aim to **reach global peaking of greenhouse gas emissions as soon as possible**, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to **achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases** in the second half of this century (Article 4)
The one word that almost sank the climate talks

It took a last-minute tweak to the text and a huge coalition to help pressure China and India to get a deal.

By ANDREW RESTUCCIA | 12/13/15, 11:40 AM CET

Laurent Fabius, who presided the COP21 summit, looks at the draft texts at his office | MARTIN BUREAU/AFPIGetty

You shall not pass

...and the path to zero disagreement.
The Paris Agreement

148 Parties have ratified of 197 Parties to the Convention

On 5 October 2016, the threshold for entry into force of the Paris Agreement was achieved. The Paris Agreement entered into force on 4 November 2016. The first session of the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA 1) took place in Marrakech, Morocco from 15-18 November 2016.

More information
The Paris Agreement

COP21 was a success, but that was the easy part

Christiana Figueres
Executive Secretary.
United Nations Framework Convention
on Climate Change.

✓ Implementation of NDCs
✓ Higher ambitions
✓ MRV
✓ Collaborative actions
Annual Global Total Greenhouse Gas Emissions (GtCO$_2$e)
Accelerating, encouraging and enabling innovation is critical for an effective, long-term global response to climate change and promoting economic growth and sustainable development.

Article 10, the Paris Agreement
Since the invention of double-entry bookkeeping in the seventh century, innovation in accounting was limited by the tedious process of reconciling ledgers.

But with the advent of blockchain’s distributed ledger system, the action of reconciling, along with many other processes categorized as "post-trade" can be rendered largely redundant.

Rob Nail, CEO of Singularity University
Blockchain technology is based on a distributed network, which allows for high-level trust among users and better monitoring over the stored data.
**Moody's Investors Service (MIS)** explored how blockchain tech potentially can improve record-keeping and transactional efficiencies across many different processes and industries. Moody's found that many companies are assessing how blockchain technology could affect their businesses and identified over 120 ongoing projects among the issuers that it rates.

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<th>Selected Potential Blockchain Use Cases</th>
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UNOPS, UNDP, UNICEF, UN Women and UNHCR are all investigating the application of blockchain in different areas.

The ITU has created a new Focus Group to analyze the standardization demands of applications and services built on distributed ledger technologies such as blockchain.

The WFP is the first UN agency to experiment with blockchain technology. The agency is using blockchain technology to distribute humanitarian aid to those in need. A pilot for cash-based transfers is ongoing in Jordan, where WFP authenticates 10K beneficiaries on the blockchain.
Blockchain technology for climate action

Potential applications:

- Improved carbon emission trading;
- Peer-to-peer renewable energy trading;
- Enhanced climate finance flows;
- Better tracking and reporting of GHG emissions reduction and avoidance of double counting;
- Supply chain management;
- Land titling; etc…
The UNFCCC secretariat recognizes potential of **blockchain technology**. Key aspects:

- Transparency;
- Cost-effectiveness;
- Efficiency;
- Stakeholder integration; and
- Enhanced creation of **global public goods (commons)**

The secretariat supports initiatives that lead to **innovation at the intersection of blockchain and climate change.**
The secretariat will be:

✓ Convening (together with partners) key stakeholders to highlight their work related to blockchain technology in the margin of COP23 (side event + booth + hackathon)

✓ Enhancing the **NAZCA = Non-State Actor Zone for Climate Action** platform under the Marrakech Partnership for Global Climate Action

✓ Exploring blockchain applications to corporates under the Gold Standard Partnership