



COP26: its implications for the energy transition and social innovation

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Introduction

The term "climate crisis" is now more accurate than "climate change" to describe this era. Climate disasters and impacts have been experienced all around the world. The rise in the global temperature has reached 1.1 °C above pre-industrial levels (IPCC, 2021). Despite the global pandemic, COP26 in Glasgow has therefore drawn enormous interest with the highest number of participants of all time (Carbon Brief, 2021). This article aims to provide a brief introduction of COP26, its key outcomes and its implications for global energy transition, social innovation and energy citizenship.

Overview of COP26

What is COP? What was achieved before COP26?

COP is the abbreviation term for UN Climate Change Conference of the Parties, which takes place nearly every year since 1992. The United Nations Framework Convention on Climate Change (UNFCCC) is implemented since 1994, which attempts to "prevent dangerous human interference with the climate system" with its 197 state members. The Paris Agreement has been recognized as a recent landmark in this framework, which member states pursue to limit the global temperature rise below 2 °C, and preferably 1.5 °C. The adaptation, mitigation and loss and damage aspects of climate change were reinforced specially regarding the financial support and compensation from the developed¹ countries to the developing countries (NRDC, 2021). The Paris Agreement also provides a mandatory framework for monitoring, reporting, and reassessing the climate goals at both international and national levels every 5 years, which improve the transparency (UNFCCC, 2015).

What did COP26 achieve?

COP26 in Glasgow received lots of expectations and hypes before it took place. It was expected to deliver a more ambitious plan to keep the 1.5 °C goal alive, which is warned to be a vital point to avoid major climate change catastrophes globally (<u>Science, 2016</u>). More discussion on the climate finance, reduction of coal usage and methane emission, global carbon market is also expected (<u>CFR, 2021</u>).

After the 2-week conference, <u>Glasgow Climate Pact</u> is published with the signatures of nearly 200 countries. Its major outcomes include the following (UNFCCC, 2021):

- To keep 1.5 °C goal within reach
- To revisit national and international pledges and progress every year (instead of every 5 year)
- To phase down coal

¹ The categorization of "developing" and "developed" countries is used in this article to stay in line with the wording of the Paris agreement and Glasgow climate pact. However, we are aware of its problems of impreciseness and potential of leading to stereotypes and preconceptions. Further elaboration on the problems of this terminology see the article from the <u>World Bank (2015)</u>.

- To significantly increase the adaptation and mitigation finance specially for developing countries
- To establish a common accounting framework for the international carbon market

Other key multilateral or bilateral agreements established during COP26 are²:

- Glasgow Financial Alliance for Net Zero: it pledges to mobilize about \$130 trillion of private funding to reach the 1.5 °C goal. The co-signers are financial institutions such as banks and firms.
- Global Methane Pledge: nearly 100 countries signed to reduce their methane emissions by 30% by 2030. It has been highly celebrated because of its dedication to reduce methane emissions in gas and oil infrastructure but also faced some doubts in its notion on agriculture as the U.S.A. only promised to increase the efficiency in this sector (European Environmental Policy, 2021). Several major emitters of methane, such as China, Russia, India, Australia did not endorse it either.
- <u>Declaration to End Deforestation by 2030</u>: a commitment endorsed by 141 countries' leaders with the pledge of £14 billion to be invested in forest restoration. A similar agreement, <u>New York Declaration on Forests (NYDF)</u> was finalized in 2014 but is considered a failure for not achieving its goal (<u>Earth Sight.org</u>, 2019). However, this declaration in 2021 has new endorsers which are forested countries such as Russia, Brazil, China.
- <u>Global Coal to Clean Power Transition Statement</u> (GCCT): 45 countries' representatives have committed to move away from unabated coal power generation by 2030 (major economies) and 2040.
- <u>Statement on International Public Support for the Clean Energy Transition</u>: a commitment to stop public funding in unabated coal industries with the endorsement from 38 countries.
- <u>China-U.S.A. Joint Glasgow Declaration on Enhancing Climate Action in the 2020s</u>: A bilateral agreement to reduce greenhouse gas emission and to cooperate for clean energy development.
- <u>International Just Energy Transition Partnership with South Africa</u>: France, Germany, UK, USA, EU and South Africa have jointly announced their new multilateral agreement on the decarbonization of the economy in South Africa with the focus of energy sector.

What did COP26 fail to achieve?

The outcomes of COP26 faced considerable criticisms. Even with all the pledges made during COP26, it is still argued to be far from the 1.5°C goal and 2.1°C increase in global temperature is estimated by the end of this century (CFR, 2021). Most of the commitments are not legally-binding and some did not promise a deadline. The climate finance for poorer countries for adaptation and mitigation is still seriously insufficiently delivered by the rich countries so far (CFR, 2021). The funds for loss

² Those statements regarding the energy transition are further discussed in the next section.

and damage were not agreed and even purposefully hindered by the rich countries (CFR, 2021).

The implications for global energy transition

The energy transition at a faster speed and a wider scale becomes a crucial part of the discussion in COP26, as the energy sector (including electricity, heating and transportation) accounts for 76% of global greenhouse gas emission in 2018 (Climate Watch, 2021). A significant cut in its emission is thus essential for the climate goal.

What is promised for the global energy transition?

The crucial role of coal phasing-out in reaching the 1.5°C target has been increasingly recognized in recent years. Studies show that it needs to be done by 2030 in OECD countries and EU and by 2040 in the rest of the world in order to meet the Paris agreement (Climate Analytics, 2016).

One major achievement of COP26 is its direct pledge on phasing down coal at a global scale. It is phrased at the final version of Glasgow Climate Pact as "...by rapidly scaling up the deployment of clean power generation and energy efficiency measures, including accelerating efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies". Phasing down coal is for the first time included in the COP final resolution (which was originally "phase out coal" but was changed in the last minute).

The <u>Statement On International Public Support For The Clean Energy Transition</u> was signed during the first week of COP26 by 34 countries and several development banks, which commits to "prioritise our support fully towards the clean energy transition, using our resources to enhance what can be delivered by the private sector" and "end new direct public support for the international unabated fossil fuel energy sector by the end of 2022". According to <u>Global Energy Monitor</u> (2021), China, the UK, Japan and South Korea are the top financing countries for coal projects oversea. However, only the UK has undersigned this statement. The potential of undermining the international coal investment can be seen.

Another declaration, Global Coal to Clean Power Transition, pledges to improve the affordability and accessibility of clean power, signed by more than 40 countries and many representatives from the private sector. The 3 biggest coal countries, India, China, and the U.S.A have however not participated. In Europe, the biggest coal country, Germany, has endorsed it alongside with most commitments mentioned in this report. Ukraine's participation is considered a new progress as it is the third largest coal country in Europe. Despite the signature of Poland, it however claimed the "less developed" status and insists on its coal phase-out only in 2049 (E3G, 2021). Some signatures are the new pledges on phasing out coal for South Korea, Indonesia and Vietnam, which are among the top 10 coal countries (Ember, 2021).

Multi- and bilateral agreements have received attention for its potential contribution to a more ambitious global energy transition. A bilateral agreement, <u>U.S.-China Joint</u>

Glasgow Declaration on Enhancing Climate Action in the 2020s has been announced during COP26 too, in which both sides agreed on accelerating the decarbonisation of the energy sector, expansion of renewable energy and phasing down coal. Nonetheless, the only deadline mentioned in this statement is that "The United States has set a goal to reach 100% carbon pollution-free electricity by 2035." The multilateral agreement, International Just Energy Transition Partnership with South Africa, has promised to offer \$8.5 billion for the first phase from France, Germany, UK, USA, EU to be invested in energy transition in South Africa. As the country with the highest coal production in Africa (Statista, 2019), this partnership could potentially offer a transforming model for other African countries and middle-income countries such as Indonesia and India (E3G, 2022). The Powering Past Coal Alliance (PPCA) has expanded its membership by 20 new countries during COP26, which encourages its members to stick to the commitment to phase out coal by 2030 in the OECD and EU, and by no later than 2050 in the rest of the world.

Commitment for supporting E-mobility

A multilateral commitment to zero-emission from vehicles was announced during COP26, COP26 declaration on accelerating the transition to 100% zero emission cars and vans ³with 38 countries' signatures as well as many automobile manufacturers. One of the promises in the declaration was "As governments, we will work towards all sales of new cars and vans being zero emission by 2040 or earlier, or by no later than 2035 in leading markets." Despite the participation from India and Canada in this declaration (both are large markets for automobiles), Germany, Italy, the USA, Japan and China did not sign it, which have large car production and car ownership per capital in the world (World Population Review, 2021). However, it brings hopes for the further development of E-mobility and its infrastructure at a global scale.

Trends and criticisms

A clear trend of phasing down/out coal and more renewable energy integration could be observed, which expanded also to the private sector around the world. A possible outcome is that more global financial support and investment in renewable energy and related fields. Most pledges also include the responsibility of the developed countries to support the developing countries financially and technically for the clean energy and transportation transition. Another trend is the growing pressure and recognition for the role of the private sector, which is stressed a lot during lots of discussion inside COP26.

Nonetheless, other types of fossil fuels such as petroleum oil and gas have received far less pressure than coal⁴, which in fact have received more public financial subsidies for decades worldwide (Fossil Fuel Subsidy Tracker, 2021). Other problems

³ A zero-emission car and van is defined in the declaration as those "that produces zero greenhouse gas emissions at the tailpipe".

⁴ Despite the formation of <u>Beyond Oil and Gas Alliance</u> in COP26, only 8 countries are its core members and there is no clear deadline for ending the production of oil and gas.

are also identified. Firstly, almost all the official statements only target at "unabated fossil fuel", which means coal industries using Carbon Capture and Storage (CCS) technologies are excluded. CCS technologies have been argued by environmentalists and researchers 5 to not be a climate solution, if not a "scam" (Greenpeace, 2015). Secondly, fossil fuel industries were reported to have the biggest delegation in COP26, bigger than any national delegation (Global Witness, 2021), which could have seriously weakened the determination of countries for more ambitious climate goals or plans. Thirdly, many major coal countries, such as China and the USA, have not pledged or signed those statements on fossil fuels. Many endorsers on these statements have already pledged to phase out coal before COP26, which implies the less impressive achievement of COP26 than some media portraited. Last but not the least, despite net-zero goals have been put up everywhere inside the venue of COP26, no country's current climate policies and pledges are sufficient to meet the 1.5 °C goal (Climate Action Tracker, 2021), which implies a serious gap between promises and execution. For example, many major emitters still include coal as the main source of energy by 2030 (Climate Action Tracker, 2021). Considering these criticisms, it is uncertain to call COP26 a success considering the urgency of the climate crisis.

What COP26 means for social innovation and energy citizenship?

The non-state sector has received growing attention in COP negotiation. The campaign "Race To Zero" is joint by more actors to set their climate goals as companies, organizations and cities (UNFCCC, 2021). Transnational corporations are making more commitments to net-zero goals, investment in clean energy and reduction in fossil fuel usage. Social innovation and civil participation projects worldwide were presented in side-events and sessions inside COP26. More fundings from the public and private sector in the expansion of renewable energy and its infrastructure could be anticipated for the coming years, which might bring more support for social innovative projects and organizations worldwide. Some effort in supporting social innovation for knowledge-sharing and networking has been seen in COP26, such as the establishment of UN Climate Change Global Innovation Hub (which is an online platform still under construction). Though the sustainable innovation is highly celebrated inside COP26, the structural barriers (such as lack of funding, representation, law) specially faced more by smaller innovative projects seemed not to be sufficiently addressed in the negotiation.

Green micro finance is supposed to be a crucial foundation for the social innovation combating climate change. It has been receiving more attention in COP, which aims to support small stakeholders and vulnerable groups for climate adaptation and mitigation. However, as experts pointed out⁶, only 10% of the climate finance (most of which is not yet delivered) targets at this field. More funding is demanded

⁵ See reports from <u>Greenpeace (2015)</u>, <u>Friends of the Earth Scotland (2021)</u>, <u>Center for International Environmental Law (CIEL) (2021)</u>

⁶ A session at COP26: Social innovation and climate justice. The recording could be found here.

especially for the social innovation in the poorer nations in COP26, however it was addressed as a single issue in almost none of the COP26 statements.

Energy citizenship has been discussed in some side-events and the experience was shared among different institutions, local governments and companies. Involvement of the local communities and citizens in decision-making process for renewable energy projects is widely recognized as necessary. Energy citizenship and energy communities are seen to be crucial especially for African countries for the expansion of electrification to improve the living qualities⁷. However, concrete discussion in the political negotiation on the mechanisms to involve citizens in the development of renewable energy is still insufficient in COP26, as experts argued⁸.

Many social innovation projects aim to reduce the social inequalities and contribute to climate justice. Energy citizenship as a concept of empowering citizens in the energy generation and usage, it also partly aims to reduce the power imbalance between the state/ energy companies and the local communities. Therefore, experts in these fields⁹ called for more attention on inequalities inside and outside COP26. The civil society has very limited access to voice their demands or even to observe the negotiation¹⁰. Poorer nations and marginalized communities have less financial support and geo-political power while being at the front line of climate disasters. In restricted area of COP (blue zone), female participants account for only about 25%. In this decade, the percentage of women in party delegations have never exceeded 40% in COP (Carbon Brief, 2021). However, women have been always most affected and vulnerable to climate change around the world (GenderCC, 2021). Tackling inequalities and injustice remains a considerable challenge in COP26.

Conclusion

Glasgow climate pact is an important further step from the Paris Agreement since 2015. The enormous pressure due to the worsening impact of climate crisis has pushed states in the COP26 to pledge more climate goals. The private sector plays a more important role in cutting down emission and has promised on reducing carbon emission and the usage of fossil fuel. COP26 certainly brings more momentum, recognition and probably funding in the clean energy transition. However, it also partly fails at its lack of more ambitious goals, substantial support for people/nations with less power and of prioritizing the civil engagement and empowerment. COP27 next year is hosted by Egypt, the NDCs are supposed to be re-assessed and pledges might be re-evaluated. Before that, the civil societies should continue to examine the progress of the states and the business world. As said by many, we hardly have any time left.

⁷ Online event: "Online event on the occasion of COP26 - Just energy transition: Including citizens and communities in wind power projects". The recording could be found here.

⁸ Same reference as footnote 6.

⁹ Same reference as footnote 5.

¹⁰ For example, many sessions inside COP26 provide very limited slots for observers or sometimes no observers are allowed to come in because of "Corona regulations".