Asia's Contribution to Post-Paris **Climate Action**

Putting Equity, Transparency, and the "Phasedown" of Coal Use into Perspective

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The Glasgow Climate Pact

The adoption of the Paris Agreement in late 2015 was a major milestone in the history of institutionalising international cooperation on climate change mitigation and the UN climate regime.¹ The Agreement reverses the previous approach to international climate action under the 1997 Kyoto Protocol in two important ways. First, under the Paris Agreement all parties have to make commitments to mitigate climate change. The Kyoto Protocol limited emissions reduction obligations to developed countries - i.e., mainly the members of the Organisation for Economic Co-operation and Development (OECD) at the time. Thus, in Asia only Japan was obliged to reduce its greenhouse gas

However, during the period from the Kyoto Protocol's adoption in 1997 to the start of the first round of implementing measures to reduce emissions in 2008, the reality of Asia's political economy and regional emissions patterns changed dramatically. China's economy in particular experienced an enormous growth. Therefore, including developing countries in a new legal framework to limit and reduce greenhouse gas emissions became the primary focus of multilateral negotiations about restructuring global climate cooperation.

Interrelatedly, a second adjustment that distinguishes the Paris Agreement from the Kyoto Protocol is the Agreement's acknowledgement of divergent socio-economic circumstances that the parties to the UN climate regime face, with respect to both mitigating climate change and adapting to the consequences

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of global warming. Therefore, climate action commitments under the Paris Agreement were no longer negotiated emissions reduction obligations. Instead, the restructured approach relied on so-called nationally defined contributions (NDCs) that the governments of the parties have to submit to the registry of the UN climate regime. These submissions

contain their national plans to reduce greenhouse gas emissions, primarily consisting of national future energy trajectories. Accordingly, for the first time, all governments that preside over large emerging economies in Asia also had to present their energy and climate plans to a global public.

The first round of collecting the parties' NDCs coincided with the adoption of the Paris Agreement. Yet, the sum of these commitments was woefully inadequate. The parties failed to prescribe a pathway to obtain the objective of the Paris Agreement that aims to keep

In November 2021, the most recent round of multilateral climate negotiations took place in Glasgow, United Kingdom. Among this summit's accomplishments are a declaration by the parties to the UN climate regime to work towards a "phasedown of unabated coal power" and the completion of the Katowice Rulebook, which contains detailed guidelines to bring the 2015 Paris Agreement into effect. How should the international community engage with the - now complete - legal rules to implement the Paris Agreement; and what does the institutionalised cooperation mean for the transformation of the energy system and climate activism in Asia, especially regarding the position of women?

global warming within the limits of 1.5 to 2° C, compared to pre-industrial levels.² As a result, they agreed to present updated NDCs by 2020 and subsequently every five years. This adjustment illustrates that the cooperation under the Paris Agreement will be a continuous process. It requires ongoing international coordination, oversight, and a regular strengthening of commitments.

The decisions contained in the Katowice Rulebook (hereafter Rulebook) seek to provide guidelines for this ongoing process, by establishing monitoring and review mechanisms. The publicly available assessments of the parties' performance that derive from the review procedures will then inform further negotiations. They will form the basis for directing the parties' work to achieve another important objective of the Paris Agreement: the realisation of global climate neutrality in the second half of this century, "on the basis of equity, and in the context of sustainable development and

> efforts to eradicate poverty."3 In other words, by about 2050 the global economy should be a better place, ecologically and

When negotiating the provisions of the Rulebook, the parties struggled to agree on rules that seek to ensure transparency with respect to national governments' performance regarding the implementation

of their self-chosen NDCs. Some gaps were left open by previous climate summits regarding monitoring and review procedures to enhance transparency with respect to the implementation of national plans as well as the length of the plans' implementation periods. Moreover, the completion of the Rulebook was delayed by the postponement of the Glasgow summit following the outbreak of the coronavirus pandemic in early 2020. After tedious negotiations, the Glasgow Climate Pact finally fills the regulatory gaps and enables the parties to engage in a global

debate about improving national energy policies and climate change measures from 2023 onwards.4

The structure of national energy sectors will be the foremost concern of policymakers in the years to come. Since the beginning of the Industrial Revolution, the share of heattrapping greenhouse gases in the atmosphere has been increasing, in particular from the second half of the 20th century onwards. The energy sector is mainly responsible for this increase, while carbon dioxide (CO2), a highly potent greenhouse gas, dominates those energy-related greenhouse gas emissions. Because CO2 is primarily emitted in the course of burning fossil fuels to produce energy, efforts to stabilise the concentration of greenhouse gases in the atmosphere need to start with the energy sector. Hence, when the parties to the UN climate regime presented their first NDCs to mitigate climate change, these policy plans generally focused on the energy sector.

National energy policies also touch upon important matters of economic security. Preserving policy space beyond rigid international and domestic scrutiny seems vital in an era of political, economic, and ecological uncertainty. Still, accountability in the form of an open global debate about best practices and necessary improvements are the basis for trust among the parties to the UN climate regime. In this context, the main focus will be on the transformation of the energy system, especially on whether – and to what extent - economies use coal to produce electricity. Parties will be eager to see how their peers' national energy sectors are performing in terms of emissions reductions. The Glasgow Climate Pact finalised the institutionalisation of this debate, and Asian leaders will play a prominent role in these deliberations.

Asia and the global governance of the lowcarbon energy transition

Emitting 16,778 million tonnes of CO2 in 2020, Asia-Pacific accounted for about 52% of global CO2 emissions (32,2284 million tonnes). Despite the impact of the pandemic and slightly lower emissions than in previous years, Asia-Pacific continued to increase its

share in global emissions. The largest emitters of CO2 in this region are China (9,899 million tonnes), India (2,302 million tonnes), Japan (1,027 million tonnes), South Korea (578 million tonnes), and Indonesia (545 million tonnes).5

This brief overview shows that developing countries now dominate the region's emissions patterns. Accordingly, their efforts to limit CO2 emissions are essential for achieving the objectives of the Paris Agreement and preventing dangerous climate change. No doubt, industrialised countries in North America and Europe will still be expected to take the lead in reducing their emissions. Their experiences with governing the decarbonisation of industrialised economies while preserving societal resilience will provide valuable input in the global debate. However, industrialised economies' share of annual global emissions is declining rapidly. Despite all efforts that these countries will make, only additional emissions reductions in large emerging economies can prevent dangerous climate change in the future. Thus, the Asia-Pacific region will be the ground-zero of meaningful global climate action in the decades to come.

In order to understand the transformation processes that are unfolding, it is essential to assess national energy policies and legislation, including frequent adjustments. National governance systems matter, as the transition from the vast utilisation of fossil fuels to a climate-neutral economy is different from previous energy transitions. In the past - for instance, when coal replaced wood to drive locomotives, or later when diesel was used instead of coal – it was the new fuel's cost-effectiveness or more advantageous utilisation that instigated the fuel transition. The deep decarbonisation of the entire energy system, however, requires government measures to incentivise the shift to non-fossil fuels and low-carbon technologies. Thus, the consideration of nationally governed transitions requires a long-term assessment of national policies and legislation beyond occasional high-level pledges.

This is particularly true in the case of China. The Chinese leadership pledged to peak CO2 emissions before 2030 and achieve carbonneutrality by 2060. Yet, the country's NDC and internal energy policy documents, such as the recent 14th Five-Year Plan, do not provide any



Fig. 1 (above): Mitzi Jonelle Tan. Fig. 2 (below right): Farzana Faruk Jhumu. Fig. 3 (above right): Young climate activist, Pakistan, September 2019. All Watercolours by the author, 2022.

concrete measure that outlines the path to accomplish the necessary transition process. In addition, the lack of public scrutiny of policy design and implementation in China will be a great challenge for the global debate.

For industrialised and big emerging economies, the transition to low-carbon energy generation implies a shift away from the current fossil economies to climate neutrality as the main feature of the energy sector. This transformation not only entails numerous technological challenges but also comes with socio-economic collaterals. All economic systems that are prevalent in the world today are based on the combustion of fossil fuels. In fact, the fossil-fuel based industrial revolution brought forward capitalism as a socioeconomic system, and this advancement was largely a "masculine" business. Coal miners and workers in factories that built locomotives and generators were all men; and the financiers of these activities and capitalism's worldwide expansion were men as well. Thus, the global fossil economy is a stereotypically "masculine" endeavour, and the incumbent fossil energy system maintains structures of inequality and injustice in national economies and globally.6

During the final moments of the Glasgow climate summit, the male leaders of the Indian and Chinese delegations scrambled to change the wording in the final document of the Glasgow Climate Pact, which describes parties' tasks, from "accelerating efforts towards the phase-out of unabated coal power" to "accelerating efforts towards the phasedown of unabated coal power" (italics added). In this moment, the Indian and Chinese delegation leaders were clearly driven by the interests of domestic coal-processing industries and their local political constituencies rather than the future generations of their nations. In fact, current trends in the energy business and the International Energy Agency's scenarios⁷ to achieve the Paris Agreement's temperature goals point to a rapid decline in coal use. Notwithstanding the complicated path to phasing out coal power in these two big Asian economies, with this textual rabbit punch the Chinese and Indian delegation heads were fighting a rearguard action. Watching representatives of the "masculine" fossil economy proceed in this manner, one might ask whether emerging paths to a decarbonised economy and societal movements suggest alternative, more inclusive imaginaries of the future?

From law-making to climate action

The distribution of global emissions puts negotiation strategies and policies adopted by governments in the Asia-Pacific region in the spotlight. Yet, it also highlights the role of civil society and in particular the growing role of climate activism in the region. In fact, in many Asian countries young women have taken the lead and are actively demanding profound policy changes. It is thus worthwhile to consider how the Paris framework for climate cooperation positions the Asia-Pacific region in global climate governance, including the region's civil society movements.

In the process of implementing the Paris Agreement, two issues stand out. First, the interaction of national policies and standardised international review mechanisms, whose outcomes will be publicly available and discussed, inspire a further consideration of the Paris Agreement's bottom-up approach. This notion of "bottom-up" would not only point to "nationally-determined" commitments to mitigate climate change but also to the contribution of citizens and civil society organisations to the debate. No doubt, nonstate actors are playing an increasing role in the global conversation about future energy and climate governance. Their voices are crucial. Second, the principles of the Paris Agreement, combined with the call for a "phasedown" of coal power, propose a new approach to the concept of intergenerational equity in the context of climate cooperation, which the final part of this section will elaborate.

In 2023, the first global stocktake, a broad assessment of the implementation of the parties' NDCs, will be held in the context of the annual climate summit. This global stocktake essentially

determines whether the parties are in sum on path towards achieving the Paris temperature goals and climate neutrality by about 2050. The provisions of Article 14 of the Paris Agreement do not intend to discuss individual countries' performance. However, at least in the public domain beyond the summit meeting hall, this will be difficult to prevent, especially if large emitters of greenhouse gases lag far behind in implementing their self-determined policies and if new policy proposals do not reflect their "fair share" in the global effort. Thus, the monitoring and review mechanisms under the Paris Agreement and its Rulebook will provide valuable information that climate activists in Asia-Pacific can use to target their activities, raise awareness, and increase the pressure on domestic fossil-bound elites.

More often than not, elites in developing countries justify delays in limiting greenhouse gas emissions with the notion that economic development must be achieved first, before environmental measures can be implemented. Fast and cheap development relies on coal. Indeed, during the 1990s, the global approach to climate change mitigation tolerated developing countries' carbonintensive development on the basis of equity considerations, quoting the right to development. Developed countries had to take the lead in reducing emissions. In fact, many provisions of the UN Framework Convention on Climate Change and the Kyoto Protocol reflect this line of thought. Furthermore, at that time, the consequences of climate change were expected to materialise only in a very

This equation has changed dramatically. Technological advancements have made the low-carbon energy transition feasible. Moreover, the effects of global warming (e.g., extreme weather events, strong typhoons, and prolonged periods of drought) are increasingly felt in many parts of the world, including in the Asia-Pacific region. In addition, in the Paris Agreement, developing countries agreed to contribute to the transformation of the global energy system. Obviously, in the course of the low-carbon transition, equity issues loom large. They concern several aspects of this process. The Paris Agreement seeks to address the issues by obliging developed countries to provide financial and technological support and contribute to capacity building. This support is crucial, and developed countries definitely need to double down on their efforts.

However, for developing countries the low-carbon energy transition also constitutes an investment in the future. The prospect of creating a climate neutral global economy by the second half of this century forces governments and the public in developing countries to re-imagine their place in the global

economy. If developing countries can find ways to embrace this evolving reality, they can successfully elaborate more inclusive pathways to prosperity in the changing global economy.

Investments in the coal sectors of developing countries illustrate a downside of this evolving reality. In recent years, political elites in Pakistan and Indonesia chose to expand their coal sectors by adding mining, coal-fired power plants, and/or coal export facilities. They considered these investments as a boost for their national economies, creating revenues and supplying electricity to urban centres. Yet, these achievements only bring short-term gains, while environmental impacts of the projects' mining and transport infrastructure are also considerable.

When fully appreciating the Paris Agreement's objectives, a choice for the expansion of the coal sector during the second or even third decade of the 21st century cannot be justified by referring to the right to

development. The increase of greenhouse gas emissions that result from the implementation of these projects contributes to the global climate crisis. Furthermore, national budgets are burdened with high costs without a real prospect of recovering the investments, as the facilities cannot be operated unabated much longer than 2050. The implementation of measures to address their emissions and other environmental impacts will even increase the costs. Hence, coal investments today negatively correspond to the concept of intergenerational equity, as they lock in a carbon-intensive economic development trajectory, including gender-based inequities. Leaving behind these polluting assets will hardly benefit the next generations. Intergenerational equity today is about a meaningful national strategy to achieve climate neutrality. Opting against carbonintensive energy production and related infrastructure is an urgent need not only in industrialised countries but also in developing countries in the Asia-Pacific region.

A novel research agenda

With its worldwide activities, the Fridays for Future movement has inspired a new generation of climate activists. Many of the local leaders in the Asia-Pacific region who are engaged in this global movement are women, such as Disha Ravi in India, Farzana Faruk Jhumu in Bangladesh, and Mitzi Jonelle Tan in the Philippines. Their voices are as important as the accomplishments of female entrepreneurs in the renewable energy business and rural women, whose knowledge is essential to help their communities adapt to the consequences of global warming. Wandee Khunchornyakong Juljaren, for instance, pioneered the solar farms business in Thailand, financed by an investment from the International Finance Corporation of the World Bank.8 Meanwhile, Wonder Women (Ibu Inspirasi) live in off-grid communities in Indonesia and support their friends and family to gain access to renewable energy.9

The provisions of the Paris Agreement strongly promote the role of women in climate governance and gender equality. No doubt, in order to keep hearing their voices, non-governmental organisations will need to cooperate with Asia's climate activists. Support from international financial institutions is needed to realise the visions of innovative entrepreneurs and strengthen the resilience of local communities. These bottom-up efforts are vital to imagine an energy future that can overcome the shortcomings created by the fossil economy in the Asia-Pacific region.

Academic research also has an important task. It concerns the way in which scholars engage with and present the narrative of this





enormous transformation. More often than not, the notion of a just transition solely takes into account the fate of coal-producing regions, while injustices that result from delaying the low-carbon transition are not part of the debate. The energy basis of the global economy is shifting to new fuels that will alter the way energy is produced, transported, and consumed. The story of the Asia-Pacific region will be central to this global tale. Energy sector analysts and economists are carefully watching how regional developments influence global markets and energy flows. Yet, interdisciplinary academic research is necessary to grasp the enormity of this great transformation. In this regard, feminist methodologies will be essential to understand the variety of actors who drive this socio-economic and societal transition and to fully appreciate women's contribution to this generational effort in Asia. Ideally, the story that is told about abandoning the fossil economy in the Asia-Pacific region also considers this system's persistent gender-based inequities. To be sure, phasing down the male-dominated fossil economy gives rise to new perspectives on the future in Asia and beyond.

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Notes

- 1 The UN climate regime consists of three treaties the 1992 United Nations
 Framework Convention on Climate
 Change, 1997 Kyoto Protocol, and 2015
 Paris Agreement as well as the decisions taken by the bodies of the regime under these treaties. See for the treaties, United Nations Framework Convention on Climate Change, 9 May 1992, 1771 UNTS 107, 31
 ILM 849 (1992), Kyoto Protocol to the
 UN Framework Convention on Climate
 Change, 11 December 1997, 2303 UNTS 148, 37 ILM 22 (1998), and Decision 1/CP.21 Adoption of the Paris Agreement (FCCC/CP/2015/10/Add.1), 29 January 2016.
- 2 Article 2 (1) (a) of the Paris Agreement.3 Article 4 (1) of the Paris Agreement.
- 4 United Nations Climate Change,
 "Glasgow Climate Pact Advance
 unedited version," https://unfcoc.int/sites/default/files/resource/cma3-auv-2-cover%20decision.pdf.
- 5 BP, "Statistical Review of World Energy 2021," https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2021-full-report.pdf, p. 15.
- 6 Brown, Benjamin, and Samuel J. Siegel, "Coals, Climate Justice, and the Cultural Politics of Energy Transition," Global Environmental Politics 19, no. 2 (2019): 151.
- 7 International Energy Agency, "World Energy Outlook 2021 Report Extract: Phasing out Coal," https://www.iea.org/reports/world-energy-outlook-2021/phasing-out-coal.
- 8 International Finance Corporation,
 "A Women Entrepreneur Creates a Brighter
 Future in Thailand," August 2016,
 https://www.ifc.org/wps/wcm/connect/
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- 9 IRENA, "Indonesia's 'Superheroines' Empowered with Renewables," 22 April 2018 https://irena.org/newsroom/ articles/2018/Apr/Indonesias-Superheroines-Empowered-with-Renewables.