



Searching for a Climate Solution (Part 2): Handicapping Glasgow—Major challenges vs. Five Winds of Change

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Don Kanak, Chairman of Prudential Insurance Growth Markets, has been engaged in environmental protection and climate change starting from his first job at the United States Environmental Protection Agency in the 1970s. During his extensive career in insurance and investments, Don has chaired the WWF's Global Forest and Climate Initiative, served as a member on the United Nations Global Environment Facility's Technical Advisory Group on its 2014-2018 climate change mitigation strategy, and participated in climate meetings alongside Copenhagen (COP 15, 2009) and Doha (COP 18, 2012).

As we approach what would have been the scheduled date of COP 26 in Glasgow, we asked Don to share his thoughts on the importance of the climate change negotiations, historical challenges, and prospects for Glasgow in this two-part series.

The first part of this series summarised the history of the UNFCCC's negotiations from the early 1990s through to COP 21 in Paris in 2015, where 188 countries agreed to the goal of keeping the global temperature increase to within 2°C by 2100, whilst striving for 1.5°C¹.

However, even if the U.S. and other countries that are not parties to the Paris Agreement² join in, and all countries meet their commitments, the world will still experience 2.4 - 2.7°C of warming³, with disastrous consequences. As Princeton University Professor Michael Oppenheimer wrote in the recent edition of *Foreign Affairs*: "Even achieving the Paris targets would not be a free pass to avoid adaptation... [T]he resulting warming would still create serious consequences, such as a hundredfold uptick in the frequencies of floods along large swaths of the world's coasts⁴."

What are the odds that climate negotiators at COP 26 in Glasgow can agree on more ambitious

Source: ¹UNFCCC. (n.d.) "Paris Agreement – Status of Ratification". <https://unfccc.int/process/the-paris-agreement/status-of-ratification>. ²See https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&lang=en. ³Climate Action Tracker, September 2020 edition. ⁴Oppenheimer, M. (2020). "As the world burns – climate change's dangerous next phase". *Foreign Affairs*. Volume 99, Number 6.

reductions? That will depend on whether negotiators can tackle the “Iron Triangle” (Fig. 1) – questions that have challenged their predecessors at every step since COP 1. As an additional change, leaders will be facing, at best, the early stages of recovery from the COVID-19 pandemic. Between historic high levels of public debt and their own significant infrastructure needs, will the U.S., Europe, and Japan be willing to mobilise billions of dollars of additional finance and technical assistance for developing countries called for in the Paris Agreement? Will leaders be able to demonstrate the job-creating benefits of green infrastructure to muster political support for faster transition away from coal and other fossil fuels?

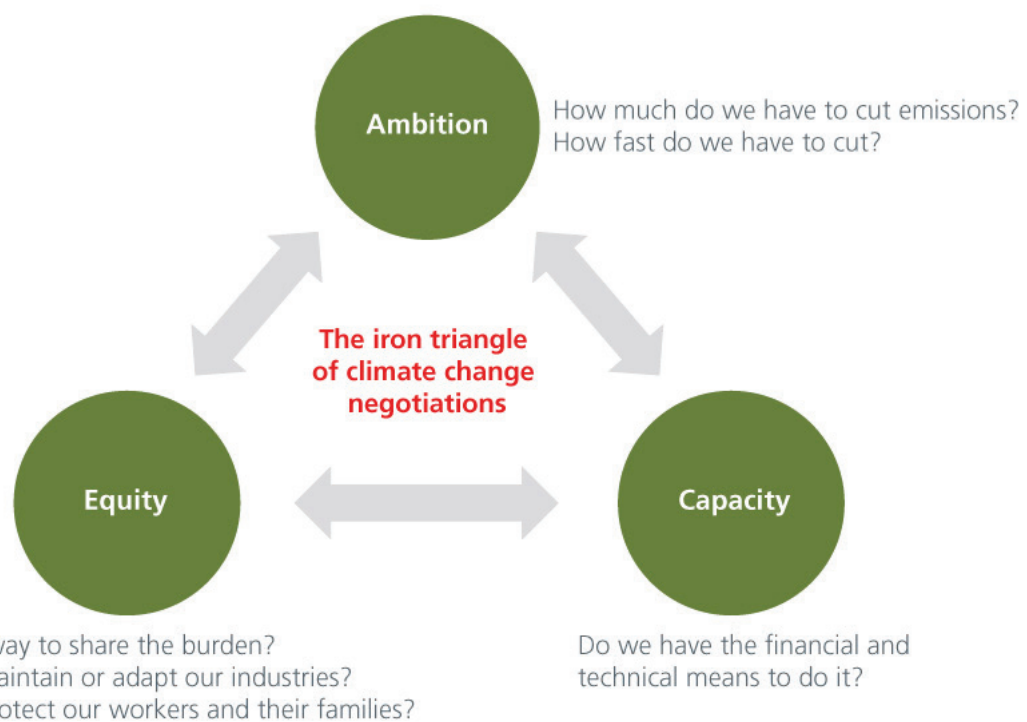
Whilst these questions raise doubts about prospects of success at COP 26, there are also five favourable “winds of change” that could fundamentally shift the odds in favour of success.

**WIND 1: EVIDENCE OF CLIMATE CHANGE
CREATING POLITICAL WILL**

Climate change happens slowly. The lack of observable evidence or immediate threat has disincentivised governments from taking stronger actions and derailed policy consensus in the past decade. It has also allowed climate change dissidents, intent on spreading alternative theories of warming, to point to past weather anomalies and sow doubt on the veracity of climate change.

The U.S. was a prime example of scepticism driving political resistance. Attitudes have changed dramatically in recent years, however, as record high temperatures, bushfires in California and occurrences of other “rare” weather events provided evidence of climate change. By 2018, 86% of citizens in South Korea, 75% in Japan, 67% in the Philippines, and 56% in Indonesia

Fig 1: The “Iron Triangle” of climate change negotiations



Source: Author's conceptual illustration

believed that global climate change is a major threat to their countries⁵. By 2019, almost two-thirds of Americans believed global climate change is affecting their local community, with 65% believing the federal government is doing too little to reduce the effects of climate change⁶.

Changes in attitude have propelled governments to put forward more aggressive climate change initiatives. In Europe, this has been reflected in the European Green Deal and a pledge to reach net-zero by 2050 whilst the UK Government has confirmed plans to publish a net-zero strategy ahead of COP 26⁷. This year, Japan, Korea, and Canada have signed on to carbon neutrality by 2050.

With Joe Biden to be sworn in as the next U.S. President in January 2021, the world's second largest emitter is set to return to the Paris Agreement, and will also speed up the U.S.'s transition to renewable energy. In developing Asia, similar winds are starting to blow. For example, the Energy and Mineral Resources Minister in Indonesia has suggested openness to replace old coal-fired power plants with renewable energy⁸ and several ministries are joining forces to pilot carbon trading in 2020⁹. Vietnam is looking to shelve nearly half of its currently planned coal power and rapidly expand renewables and natural gas¹⁰.

WIND 2: CHINA'S NEW COMMITMENT TO CARBON NEUTRALITY

In September this year, President Xi announced that China will be "carbon neutral" by 2060. This is a global game changer in three ways. Firstly, as the largest industrial economy and carbon emitter, China accounts for over a quarter of global GHGs and more than 50% of the global GHG growth

between 1990 and 2018¹¹. Without China's commitment, the 2°C path is not achievable. Secondly, China's commitment creates additional pressure on the developed and middle-income developing countries to raise their commitments and their level of international assistance to less developed countries. And finally, China is the world's largest producer, exporter, and installer of solar panels, wind turbines, batteries, and electric vehicles¹². With its Belt and Road Initiative (BRI), China can also seize the opportunity to become the leading provider of green energy systems to enable rapid energy transformation in other developing countries.

All eyes will be looking for signals in China's upcoming 14th Five Year Plan for how climate will be factored into domestic and international economic strategies to 2025 and its vision for 2035.

WIND 3: ENERGY ECONOMICS, TECHNOLOGY, AND POTENTIAL FOR PROFITS

From the 1990s, the first decade of the UNFCCC's work, the biggest obstacle to pursuing emission reductions was the "Capacity" corner of the Iron Triangle. Yvo de Boer, former Executive Secretary of the UNFCCC, said in 2009 before COP 15 in Copenhagen, "Where there's a way, there's a will¹³." Unfortunately, there was no "way" in 2009, at least not one that seemed affordable. Most countries, except those with abundant hydroelectric power, did not have confidence in their capacity to provide reliable and affordable electricity via renewable energy. Coal and other fossil fuels were readily available and much cheaper, especially as the externalities of health and environmental costs were typically excluded.

Source: ⁵Poushter, J. and Huang, C. (10 February 2019). "Climate change still seen as the top global threat, but cyberattacks a rising concern". Pew Research Center. <https://www.pewresearch.org/global/2019/02/10/climate-change-still-seen-as-the-top-global-threat-but-cyberattacks-a-rising-concern/> ⁶Tyson, A. and Kennedy, B. (23 June 2020). "Two-thirds of Americans think government should do more on climate". Pew Research Center. <https://www.pewresearch.org/science/2020/06/23/two-thirds-of-americans-think-government-should-do-more-on-climate/> ⁷The Government of the United Kingdom. (15 October 2020). "Committee on climate change's 2020 progress report: government response". <https://www.gov.uk/government/publications/committee-on-climate-changes-2020-progress-report-government-response> ⁸Asmarini, W. (30 January 2020). "Indonesia plans to replace old coal power plants with renewable plants: minister". Reuters. <https://www.reuters.com/article/us-indonesia-power-coal/indonesia-plans-to-replace-old-coal-power-plants-with-renewable-plants-minister-idUSKBN1ZT17N> ⁹Oktavianti, T.K. (7 July 2020). "Indonesia speeds up regulation on global carbon trading". The Jakarta Post. <https://www.thejakartapost.com/news/2020/07/07/indonesia-speeds-up-regulation-on-global-carbon-trading.html> ¹⁰Ha, T. (28 July 2020). "Vietnam considers scrapping half of coal power plant pipeline in favour of gas and renewables". Eco-Business. <https://www.eco-business.com/news/vietnam-considers-scrapping-half-of-coal-power-plant-pipeline-in-favour-of-gas-and-renewables/> ¹¹Olivier J.G.J. and Peters J.A.H.W. (2020), Trends in global CO₂ and total greenhouse gas emissions: 2019 report. Report no. 4068. PBL Netherlands Environmental Assessment Agency, The Hague. ¹²Global Commission on the Geopolitics of Energy Transformation. (2019). A new world: The geopolitics of the energy transition. Page 40. http://geopoliticsofenergy.org/assets/geopolitics/Reports/wp-content/uploads/2019/01/Global_commission_renewable_energy_2019.pdf ¹³Khan, R. S. (15 November 2009). "Earthly matters: Can we seal the deal?". DAWN. <https://www.dawn.com/news/502996/earthly-matters-can-we-seal-the-deal>

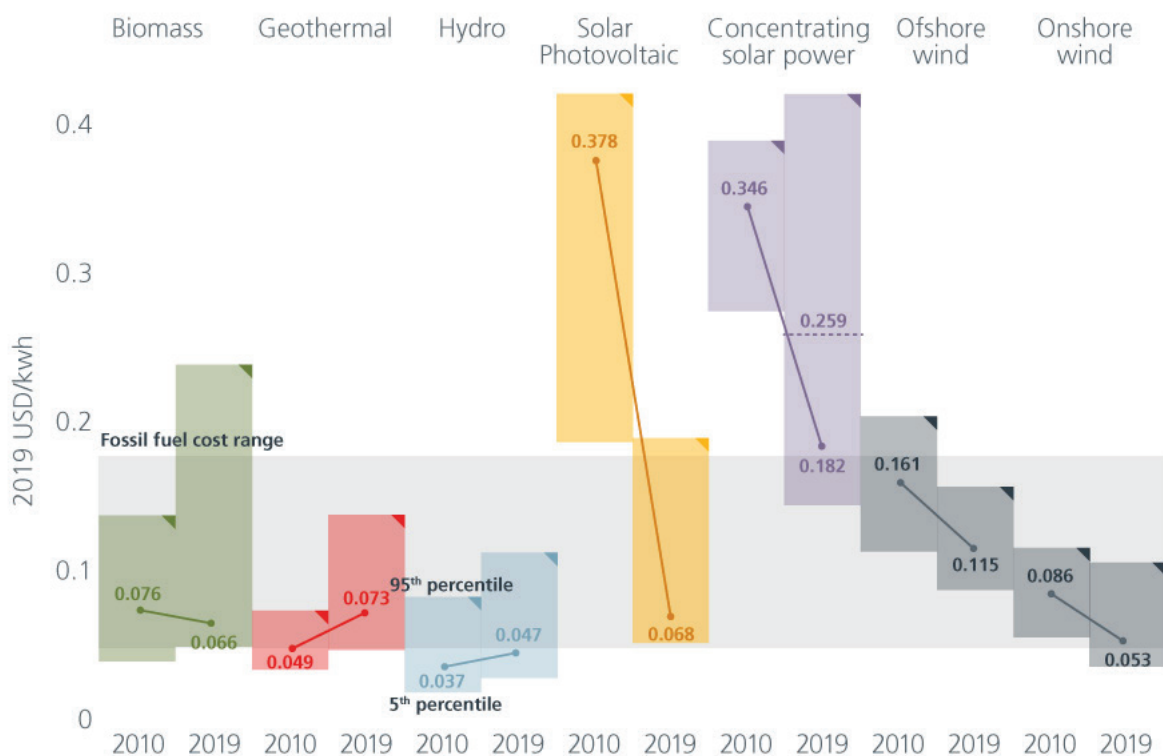
The economics of energy have been radically transformed in the past decade. The levelised cost of electricity for various forms of renewable energy is now as cheap as or is cheaper than fossil fuel power (Fig. 2). Combined with advances in battery technology and other storage and modern grid technology, there is now clearly a way to provide affordable, reliable electricity with renewables. Since 2015, almost 700 GW of renewable electrical capacity has been added globally¹⁴. Net additions of renewable electrical generation capacity have outpaced that of both fossil fuel and nuclear power capacity combined since 2015¹⁵. In Southeast Asia, capacity additions of solar PV exceeded that of new coal-fired capacity for the first time in the first half of 2019¹⁶.

The new energy economics make a rapid decarbonisation of the electric grid feasible and profitable in both developed and developing countries. The Rocky Mountain Institute has estimated that completing the coal-to-renewable transition globally would generate net financial savings of over USD100 billion by 2025¹⁷.

WIND 4: “ESG EVERYWHERE”

Climate change, in the broader context of ESG, is for the first time a focus of virtually every institutional sector on the planet: investors, shareholder advocates, central banks, regulators, stock exchanges, social justice and religious organisations, and media of all types are pushing

Fig 2: Global Levelised Cost of Energy for newly commissioned utility-scale renewable power generation technologies, 2010-2019



Note: For CSP, the dashed bar in 2019 shows the weighted average value including projects in Israel.
Source: IRENA “Renewable Power Generation Costs in 2019” Figure ES.1.

Source: ¹⁴IRENA. (2020). Renewable Energy Statistics 2020 The International Renewable Energy Agency, Abu Dhabi. <https://www.irena.org/publications/2020/Jul/Renewable-energy-statistics-2020> ¹⁵REN21. (2020). Renewables 2020 Global Status Report. Figure 9. https://www.ren21.net/wp-content/uploads/2019/05/gsr_2020_full_report_en.pdf ¹⁶IEA. (2019). Southeast Asia energy outlook 2019. <https://www.iea.org/reports/southeast-asia-energy-outlook-2019> ¹⁷Bodnar, P., Gray, M., Grbusic, T., Herz, S., Lonsdale, A., Mardell, S., Ott, C., Sundaresan, S. and Varadarajan, U. (2020). How to Retire Early: Making Accelerated Coal Phaseout Feasible and Just. Rocky Mountain Institute. <https://rmi.org/insight/how-to-retire-early>.

for greater climate awareness, disclosure, and action. Never in the history of the UNFCCC or the COP process have we witnessed such an extraordinary alignment of social, economic, and political actors calling for greater transparency and aiming for swifter decarbonisation.

The ESG movement is mobilising trillions of dollars in capital. The UN-backed Principles for Responsible Investment (PRI), of which Eastspring Investments is one of over 3,000 signatories, represents USD103 trillion assets under management¹⁸. Climate Action 100+, an organisation representing investors with more than USD47 trillion in assets, which Eastspring had joined in February 2020, has announced that it will judge 161 of the largest companies, collectively responsible for up to 80 percent of global industrial greenhouse gases, by their progress towards net-zero carbon emissions¹⁹. The Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD) has over 1,000 organisation supporters including Prudential plc, representing a market capitalisation of over USD12 trillion²⁰.

Regulators of all three major sectors of finance: banking, securities and asset management, and insurance also have global initiatives underway to incorporate climate and sustainability into supervision and disclosure. The Network of Central Banks and Supervisors for Greening the Financial System (NGFS) is working on supervision, climate scenario analysis, and scaling up green finance. The International Organisation of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) have established working groups to improve disclosure and supervision of climate-related risks.

The above activities come alongside important statements by the Business Roundtable in the U.S.²¹ and the British Academy in the U.K.²² that the purpose of business extends to benefit society and not just shareholders. That change in stakeholder philosophy, together with the institutional forces above, fundamentally alters the responsibilities of company management and boards to measure, disclose, and manage climate risk. It signals a tectonic shift in the positive role that business will play in the political landscape of the UNFCCC for COP 26 in Glasgow compared to prior COPs.

WIND 5: LOWER FOR LONGER QUANTITATIVE EASING

There are two schools of thought emerging in the pandemic era on the prospects for mobilising the trillions of dollars in public finance needed for energy transition, resilient and sustainable infrastructure, and buildings or other adaptation efforts. One view is rising debt levels and stressed fiscal positions of many government due to COVID-19 will limit resources for green investments and will reinforce the status quo. Another view is that the unprecedented amount of liquidity support and record low interest rates create a unique opportunity to “build back better” and foster a “green recovery”.

The USD100 billion dollars of annual finance pledged by developed to developing countries in the Paris Agreement²³ now seems paltry compared to more than USD6 trillion dollars of projected balance sheet expansion by the various central banks this year²⁴, or the USD12 trillion sovereign debt yielding negative interest rates²⁵. If multilateral

Source: ¹⁸As of March 2020. ¹⁹Ceres. (14 September 2020). “Climate Action 100-calls for net-zero business strategies & sets out benchmark of largest corporate emitters”. <https://www.ceres.org/news-center/press-releases/climate-action-100-calls-net-zero-business-strategies-sets-out-benchmark> ²⁰As of February 2020 ²¹Business Roundtable. (19 August 2019). “Business Roundtable redefines the purpose of a corporation to promote ‘An economy that serves all Americans’”. <https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans> ²²The British Academy. (n.d.). “Future of the corporation”. <https://www.thebritishacademy.ac.uk/programmes/future-of-the-corporation/> ²³United Nations Framework Convention on Climate Change. (2016). Report on the Conference of Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. Addendum. Part two: Action taken by the Conference of the Parties at its twenty-first session. Decision 1/CP.21 paragraph 53. <https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf> ²⁴Fitch Ratings. (24 April 2020). “Global QE asset purchases to reach USD6 trillion in 2020”. <https://www.fitchratings.com/research/sovereigns/global-qe-asset-purchases-to-reach-usd6-trillion-in-2020-24-04-2020> ²⁵UBS Asset Management. (7 July 2020). “Negative interest rates—a game changer?” <https://www.ubs.com/global/en/asset-management/insights/webinar/2020/negative-interest-rates-game-changer.html>

banks and other development finance agencies can mobilise a small portion of that finance at record low rates, they can de-risk projects or portfolios of projects and crowd in private sector capital to advance energy efficiency in buildings, fund sustainable agriculture, and accelerate the replacement of coal by solar and wind power. In fact, they can do all of the above whilst creating new jobs to boost economic recovery²⁶.

There is even the possibility of greening monetary policy itself. Both in Europe and the U.K. there are advocates of moving away from traditional “market neutral” Quantitative Easing, which has the unintended effect of buying carbon-intensive assets²⁷. Tilting the QE models to favour less carbon intensive assets could reduce the cost of funds for low carbon projects and businesses, as long as the effort does not compromise the central banks’ core mandates of price stability and orderly markets for which the QE is intended.

FINAL THOUGHTS

When the leaders convene next year at COP 26 in Glasgow, like their predecessors did in previous iterations, they will still have to tackle the Iron Triangle of Ambition, Capacity, and Equity whilst navigating difficult economic challenges. This time, however, they will be “sailing with the wind”.

The five “winds of change” discussed here create an unprecedented favourable alignment of international political support, private sector mobilisation, and economic and technological capacity. It is too early to assess the odds, but wise observers will stay informed. The outcomes in Glasgow will shape the opportunities and risks for companies and investors for decades to come.

Source: ²⁶Kanak, D. (2020). “For Health and climate: Retiring coal-fired electricity and promoting sustainable energy transition in developing countries”. Program for International Finance. <https://www.pifsinternational.org/wp-content/uploads/2020/08/Coal-retirement-mechanism-v10.0.pdf> ²⁷European Central Bank. (23 January 2020). “ECB launches review of its monetary policy strategy.” <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200123~3b8d9fc08d.en.html> Arnold, M. (15 October 2020). “ECB to consider using climate risk to steer bond purchases, says Lagarde”. Financial Times. <https://www.ft.com/content/f5f34021-795f-47a2-aade-72eb5f455e09> Schoenmaker, D. (2019). Greening monetary policy. Bruegel. <https://www.bruegel.org/2019/02/greening-monetary-policy/> Dafermos, Y., Nikolaidi, M., Van Lerven, F. and Gabor, D. (2020). Decarbonising the Bank of England’s pandemic QE. New Economics Foundation. <https://neweconomics.org/2020/08/decarbonising-the-bank-of-englands-pandemic-qe>

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