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Adviser's Note

To Build Back Better

If we go by the economic crisis of 2008, the chances that we will be able to use the 'opportunities' to *Build Back Better* after the pandemic are pretty slim. Rich countries have spent vast amounts of money to keep their economies afloat. Poorer nations' ability to spend on anything other than the most essential are vastly reduced.

Probably the main lesson we should learn from the failure of the environmental community to successfully convince is that our focus has been on arguments that appeal to us, rather than those taking the real decisions on the future of our economy, ecology and society. We cannot continue to rely on the economic models that are based on resource intensive growth, by taking yet another mortgage on the global commons.

If we look at successful environmental arguments, there is either a realistic alternative (like the alternative to Ozone depleting substances), or a cheaper alternative (like wind and solar) or other imperatives that respond better to conventional reasoning (air quality and health costs). I personally feel, we need to use the Sustainable Development Goals (SDGs) as a vehicle to judge investments (of any kind) against a broader set of objectives.

Yvo de Boer
President of the Gold Standard Foundation &
Former Executive Secretary of the UNFCCC

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Energy Review Team

COVID-19 & Climate Discourse: Sustaining Momentum

Neha Pahuja & Mekhala Sastry

Since the COVID-19 was declared as a pandemic, it has spread across 200 countries and has had massive ramifications on political, economic, financial, and social structures across the world. Governments, businesses and organisations have had to take drastic measures to curb the spread of the disease. Some of the primary measures like physical distancing, wearing face masks, travel restrictions, self-isolation, quarantines, and curbs on large social gatherings have had an impact on the larger global socio-economic system. This pandemic not only threatens the lives of the present generation but also future generations. This disease has infected 11.4 million persons and has led to the death of 53,50,000 worldwide. Countries across the globe have started easing some of the restrictions to deal with the economic challenges, we must be cognizant of the uncertainty (in terms of a cure, vaccine, the second wave of infections) associated with it. While the aspect of the uncertainty has always been associated with the global climate discourse, the pandemic highlighted the importance of 'decision making under uncertainty'. Given the massive ramifications of COVID-19 continuing to overwhelm the world, 2020 appears to be turning out into a year of huge uncertainties at the global and national levels. This uncertainty is exacerbated by the compounding risk of dealing with a pandemic outbreak and extreme weather (as seen in the case of Amphan cyclone).

The global response to the threat of climate change has never been more complicated. The Conference of Parties (COP26) and the meetings of the Subsidiary Bodies (SB52) have both been postponed to 2021. The year 2020 was an important one in the global discourse on climate action as countries were to share revised Nationally Determined Contributions (NDCs) that were to reflect enhanced and ambitious climate action. This is also crucial if we are to ensure that the first Global Stocktake scheduled for 2023 is a success.

Many argue that the Paris Agreement (PA) serves as the framework for countries to take climate action and that the rule book to implement the PA has already taken broad shape and therefore the onus of action is on respective countries now. However, it is important to note that countries are dealing with the biggest health emergency of our times, where measures to deal with the same have resulted in the steepest contraction of the global economy. So much so that many countries are considering rethinking their commitment to environmental policies while trying to recover the losses that businesses have incurred while dealing with the pandemic. COP26 and the SB52 were, therefore, crucial for sustaining momentum for undertaking enhanced climate action, for NDCs which countries have submitted currently are not enough to limit global temperature rise to 1.5°C - 2°C. In the absence of these meetings this year, it becomes important to sustain dialogue and momentum on climate action.

One possible way to ensure this would be to have several virtual international meetings to ensure a sustained dialogue. For example, the UNFCCC under the guidance of the SB Chairs organised

and conducted a series of online events from 1-10 June 2020. These events provided an opportunity for Parties and stakeholders to continue dialogue on climate action. A 'Race to Zero' campaign was also successfully launched during the course of these events. This global campaign under the stewardship of UN High Level Champions from UK and Chile currently represents a coalition of 449 cities, 21 regions, 995 businesses, 38 of the biggest investors, and 505 universities. They collectively represent 25% of global CO_2 emissions. Such initiatives ensure that achieving ambitious climate goals does not remain a distant dream.

The ongoing pandemic is negatively affecting global economic growth and it is estimated that economic growth could reduce by 3-6%. This economic fallout raises the risk of a global recession with high levels of unemployment that has not been experienced since the Great Depression in the 1930s. A partial recovery is only expected in 2021 under the assumption that the world will not witness the second wave of infections. While businesses and economic have remained closed for an extended period of time the pandemic has had an immediate impact on employment. Alarming rates of unemployment have been recorded all over the world; the Centre of Monitoring Indian Economy recorded an 8.59% unemployment rate with urban areas reporting a higher rate than rural areas.

With the threat of compounding risks of an ongoing pandemic and climate change, countries must take immediate steps to safeguard lives and revive the economy. To be successful, this will require a radical approach to policy-making with an immediate focus on (i) enabling robust healthcare capacities and infrastructure, (ii) improving access to public health services and essential supplies; and (iii) maintaining liquidity across businesses and households. And medium to long-term focus on more structural reforms that do not allow lock-in of carbon intensive infrastructure amongst other things. Only such a radical approach will ensure that the climate action remains the focus and economies revive better. Therefore, economic recovery packages will serve well if it invests in a low-carbon and resilient economy for the future. For, choices made now will impact our future generations.

There are some lessons that we can learn from this crisis as we revive our economies and apply towards greening of the recently announced economic stimulus package.

1) **Active involvement of governments** in times of crisis is crucial and climate change is yet another crisis that we face today. Therefore, governments planning to spend trillions in recovery packages need to invest in solutions, technologies and policies that are low carbon and climate resilient. For example, renewable energy may have an important role in unburdening health systems and restarting local economies. A recent study found that switching from the present electricity scenario to a more ambitious renewable energy scenario in India will reduce health costs by USD 1.98 billion by 2030 and the number of premature deaths in 2030 resulting from air pollution from coal-fired power plants can be reduced by 29%. Therefore investing in renewable energy even more vigorously now makes much more sense.

2) **Quickly mobilize financial resources** and take bold climate action. Huge financial resources are estimated to be required to undertake climate action and investments made now will reap large benefits in future. UN Secretary-General António Guterres' in a message for the International Day for Disaster Risk Reduction suggested that for every 1 USD invested in climate-resilient infrastructure 6 USD are saved. For instance, investments in low-cost climate-resilient housing using sustainable construction material are required in any developing country. On the other side, the automobile sector witnessed a huge slump like never before. While the sales of diesel cars have been one of the lowest in recent times, it is to be seen if thrust on electric vehicles and related infrastructure can be provided to see larger climate benefits as against going the old ways.

3) **Make the supply chains climate-resilient**. The current crisis necessitates that we understand the supply chain in greater depth and re-examine the viability of supply-chains where the emphasis is on securing the least cost products. It implies that there will be a need for reducing supply chains and hence, increasing domestic jobs. For instance, economic preference may be given to products from MSMEs, marking a shift in such a preference from large global companies. Although this may violate the WTO provisions it would be in the interest of many countries.

4) **Enhance focus on jobs, skills, and training and safeguarding livelihoods**. In the long term, it will be beneficial for the countries to enhance skills and create demand for these skill sets. The renewable energy sector, for example, has high job creation potential and skilling will be the primary future challenge of the sector. At the same time, in a country like India, there is a need to create local, low skill jobs and create opportunities for low carbon climate-resilient development for example use of MGNREGA for preparing a workforce that can help in achieving the goals of carbon sequestration and avoided emissions as will be important. MGNREGA also has been an important part of the economic package. This will be important to fulfil one of the NDC goals while ensuring just transition of millions of migrants that have left urban centres only recently.

There is a tremendous opportunity for countries at this stage to steer economic recovery and stimulus packages to be more environmentally conscious. Investment in nature-based solutions and sustainable agriculture, loans and grants for green investments, reinforcing environmental regulation are some of the ways this can be achieved. While 'greening' a recovery will focus on immediate economic relief, a long-term strategy is also necessary to build resilience.

(Neha Pahuja, Fellow, TERI and Mekhala Sastry, Research Associate, TERI, New Delhi)

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In varietate concordia: Energy Multilateralism

Maria Cândida A. de M. Mousinho

After the Second World War, the institutionalization of international cooperation within the scope of the UN system emerged as a way of seeking to solve the economic, social, health and humanitarian problems that faced society. During the Cold War, cooperation appeared as a legitimizing instrument for the dominant powers, and, curiously, the environment of military competition boosted cooperation between the so-called developed and developing countries. Cooperation was based primarily on a North-South or center-periphery perspective. Milani (2012) recalls that in the scope of polarization between the dominant powers in that time (USA and USSR), cooperation could also be configured as a tool for transferring economic models in force in hegemonic countries to those with less influence, institutionalizing multilateralism of cooperation for the development.

It is important to highlight that cooperation is not a static model. While earlier the forms of cooperation established by the hegemonic states with former colonies and other nations were clearly guided by the criteria of support for one particular economic system, the criteria, in recent decades, have become increasingly complex, depending on the interest at hand. The idea of international cooperation cannot be separated from the economic situation of the world in recent years nor can it be isolated from international energy crises demanding an urgent position from countries. Cooperation is, therefore, a representation of society itself: dynamic and procedural.

At the present conjuncture, when reflecting on the cooperation process, it is seen that this process must go beyond the statement put forward by Bruno Ayllón , who pointed out that for cooperation to be an effective instrument for sustainable development and for a balance between the North and the South, it must seek solutions to the challenges posed to the world in the post-Cold War scenario, which is controlled by the forces of globalization that have changed the conditions of access to investment capital, putting essential elements like sovereignty of nations' in check, limiting possibilities and scope of foreign policies.

Contemplating the current scenario and the documents- the post-war international legal framework for cooperation by the UN, almost 50 years ago- it is possible to put in the road of discussion against the challenges that seemed to be embedded in a way within the status quo of global architecture. Sanitary and environmental conservation issues took up the discourse in an urgent and unprecedented way. In addition, international politics is faced with an issue of prioritizing the territory itself, not adopting cooperation as a survival strategy can be too risky.

Regarding renewable energy (RE), cooperation has been developed globally, particularly in the last two decades. At the multilateral level, considering the BRICS, it can be seen in all declarations since 2009 that the interest of those countries in intensifying cooperation in the area of renewables is real. However, in practice, cooperation in RE can still be considered timid in a promising universe.

One of the ways to stimulate cooperation in RE, undoubtedly is through scientific means. After all, science needs cooperation to advance and scientific cooperation in RE contributes to the advancement of issues, *i.e.*, economic, environmental and health. This also means that behind the collaboration networks, there are exchanges of expertise that, in addition to contributing to enrich scientific production and the dissemination of knowledge, can be configured as a geopolitical instrument.

Considering two countries part of the BRICS group – Brazil and India, and analyzing their scientific production in RE it was found that, in over half a century, the scientific production of these countries has had a significant growth, precisely from 2010 when its publications in the area surpassed all previous decades. Regarding partnerships or scientific cooperation considering all types of RE, 45% of all Brazilian publications resulted from the collaboration process; while in India, this resulted to 29%, despite India having collaborated with more countries. Of all the countries that have collaborated with Brazil, eight of them are considered developing countries (including India), the rest of the partners are developed countries. In India, among all partners, nine are considered to be developing countries. Brazilian and Indian scientific partnerships followed a similar cooperation pattern: developed countries have been the main partners of Brazil and India in all publications on renewable energy since 1945 – and despite Brazil being India's main partner in Latin America and India being Brazil's main partner in Asia, the United States, Germany, England, France, Spain, Italy, Canada, and Australia are their main partners in all publications in RE. Cooperation between Brazil and the United States in scientific energy production is about twice that of Brazilian cooperation with Latin American countries and US cooperation with India is 2% less than the total number of partnerships that India has with other Asian countries. Considering the BRICS, it can be noted that China, South Africa and Russia occupy respectively the 13th, 15th, 19th places in the ranking of countries that have the highest level of cooperation with India in their scientific production in the area of renewables. Considering Brazil, those BRICS countries are even further away in the ranking: China in 19th, Russia in 20th and South Africa in 29th places. This also means that there is a need to make scientific knowledge less unequal and more competitive between countries, which will generate benefits for the entire international community.

Cooperation in renewable energy is crucial and when the world faces the biggest health (sanitary) crisis in history, there is an opportunity for an urgent change in the global political and economic incentives in this area. Undoubtedly, countries will be successful both in terms of competitiveness and in terms of improving techniques and exchanging experiences with economic, social, environmental, and geopolitical benefits. The increase in research, especially those with primary data, presents itself as a gap that must be filled to leverage opportunities for scientific and economic development. The time for further reflection on the development of scientific and technological cooperation in RE is fertile. Energy multilateralism weaves and stitches global architecture and all its spheres. The presence of intermediary countries in this game of interests assumes a necessary guiding role in order to keep global power structures in balance. Economies

such as Brazil and India, when seeking cooperation in scientific and technological production, promote a more balanced and equal science; the science that is conceived in the South can be a reference for the development of research in the North, contributing to make issues related to sustainability a competitive advantage.

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Energy Charter Treaty and India

Mary Sabina Peters

India's economy is largely energy driven and energy-dependent. India imports almost 70-80 percent of its crude oil needs and produces barely half the gas it consumes and is negotiating gas pipelines from Iran, Turkmenistan, and Bangladesh to meet the growing energy requirements of its booming economy. India is aiming at creating a level playing field for potential investors and gas producers, consumers, and transit countries across south Asia so that the various gas pipeline projects become a reality. For the $4 billion Iran-Pakistan-India gas pipeline to become a reality, 18 agreements would need to be signed between the three countries. However, an available alternative is the Energy Charter Treaty (ECT). The ECT obviates the need for separate inter-governmental, bilateral and multilateral agreements, which are inescapable in the IP gas pipeline project. The ECT is a legally binding multilateral agreement, and the only one dealing specifically with inter-governmental co-operation in the energy sector. Although the focus is mainly on gas pipelines, its charter also covers grid power. India, yet not a signatory, is considering signing the ECT. The treaty will equip India to cooperate with other countries to fulfil its demands for fuel and energy technology.

The most important area from India's viewpoint is the issue of transit, as the pipeline from Iran would have to cross Pakistan. The ECT has already dealt with situations similar as the break-up of the Soviet Union that had led to some countries (e.g., Ukraine and Belarus) becoming

transit countries for the gas pipelines from Russia to Western Europe. It was then felt that the WTO agreements would not be sufficient to minimize the transit risk through these countries and hence a multilateral treaty, such as the Energy Charter Treaty, would be required.

The ECT's transit provisions require that the members facilitate energy transit without distinction as to the origin, destination or ownership of energy, or discrimination as to pricing, and without imposing any unreasonable delays, restrictions or charges. A contracting party shall not interfere with the transit of energy in the event of a dispute and shall have to abide by the dispute resolution procedures of the ECT. The ECT recognizes that it is very important that there are no disadvantages to the transit country. All costs and risks have to be addressed and covered, which must also have some incentives in the form of fees and taxes to allow for transit facilities. In view of the importance of transit, it is also proposed to establish a detailed transit protocol. One of the purposes is to make transparent the criteria for setting cost-based transit tariffs and to promote the effective settlement of transit disputes.

Two interdependent model agreements are available under the ECT: the intergovernmental model, for state-to-state agreements, and a host governmental model for an agreement between an individual state and the project investor(s). It is these models, with some modifications as may be agreed between the parties, that can largely replace the multiplicity of agreements mentioned earlier.

An important feature of the ECT is that with a country quitting the treaty, the transit and trade provisions will continue to apply for one year thereafter, the investment provisions for a period of twenty years. The aim is to protect foreign investors from political risks. However, expropriation or nationalization is permitted if it is for a public purpose and the investor is adequately compensated at a fair market value.

The process for accession to the treaty requires a country to first join as an observer by signing the Energy Charter Political Declaration. It should then prepare three reports: first on harmonization of laws and regulations with the treaty provisions, second on investment climate and exception to national treatment and third on energy efficiency. On acceptance of these reports, the country is invited to sign the treaty, becoming a full member.

Apart from the Iran-Pakistan-India pipeline, other cross-border pipelines from Turkmenistan, Bangladesh and Myanmar are being considered. Turkmenistan is a member of the ECT and Iran an observer. There is every reason for India to also become an observer, which will allow it to participate in policy discussions of the Energy Charter Conference, the governing and decision-making body of the treaty. This would also encourage Pakistan and other countries in the region to follow the suit.

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Accentuating Energy Security amidst COVID-19 and Disaster Risk Management

Pooja Sharma

Amidst the health catastrophe of COVID-19, coupled with the natural disasters on the account of Climate Change, countries strive for energy security. In addition to health disasters such as Malaria outbreak, Ebola Virus Disease, SARS, etc., natural disasters such as earthquakes, tsunamis, heat waves, cyclones, etc., have also become frequent. Approximately 396 natural disasters were recorded worldwide in 2019, causing around 11,755, at the cost of around $130 billion. The impact of such disasters on power networks and energy services becomes relentless. Enhancing resilience of power system, according to the Intergovernmental Panel on Climate Change, refers to "strengthening the ability of a system and its parts anticipate, prepare for, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through the preservation, restoration, or improvement of its basic structures and function.

In this backdrop, building resilient power systems is a challenging endeavour, especially in the case of countries that are energy deficient. Visualizing the impact of COVID-19 health pandemic on the energy sector, it is witnessed that the pandemic has affected the security of most of the conventional energy resources. The collapse of oil prices as one of the consequences of health catastrophe offers a series of opportunities and collaborations for recovery and opportunities for a new energy order as evidenced in the creation of recent alignments between the Organization of Petroleum Exporting Countries (OPEC) and the G20 countries. Massive disruptions in the supply chains have majorly affected the renewable energy sector, disincentivizing the investors and other stakeholders. However, the COVID-19 pandemic unfolds hidden opportunities for re-building energy systems that would be more reliable and durable, thereby facilitating energy transition across all countries. The savings on oil import bill on account of decline in prices must be mobilized for establishing the foundation for a diversified energy source to achieve energy transition. Moreover, the crises render opportunities for the stakeholders of all energy sources to redesign the energy order to foster a sustainable energy transition pathway across the globe.

In a health pandemic such as this, the need for constant electricity supply is undisputable. In developing countries such as India and South Africa, access to reliable electricity for health facilities is extremely scant. A reliable and uninterrupted supply of electricity to hospital and local communities further re-enforces the significance of decentralized and community-based energy systems for empowering local systems by preparing them for health disasters.

The ability to connect and respond to the crises at the time when there are rules of social-distancing and lock-downs, it is incredibly imperative to be connected through cyberinfrastructure systems for the accessibility of basic needs of health and food. The entire foundation of cyberinfrastructure is based on an uninterrupted, reliable flow of electricity. Access to doctors, medicines, etc. are vital responses for

such crises. Consequently, access to reliable, affordable electricity takes a center stage of all challenges to stay connected with public services.

Ensuring freedom of energy sources or energy choices, accessibility and affordability are the needs of the hour. A health hazard or a natural calamity poses the challenge of uninterrupted energy supply that is critical in managing the disaster response. Such energy security that pertains to the choice of energy source emphasizes the immense need for diversification coupled with energy transition and the notion of the decentralized energy system. Off-grid renewable energy sources such as mini-grids or solar home systems would be the most appropriate consumer choice of energy. An indigenous energy source or a decentralized system would be a sustainable energy option. In this context of disaster risk management, energy transitions perceived by the developing countries must target for the independence of energy choices and for the flexibility to deploy a set of a diversified energy mix in the entire gambit of energy supply.

Globally, energy demand has reduced sharply, as almost one-third of the population has stayed indoors. Strengthening the financial stability and the well-being of state-owned energy utilities are crucial aspects that should be addressed adequately in post-COVID India. The ownership of transmission, distribution and regulators should be strategically planned to avert the situation of disruption of power supply during the disaster.

A wide range of systems and processes are required to channel preparedness, response and recovery to varied stakeholders involved in the energy sector, namely utilities, policymakers, regulators and financiers. A symbiosis of market players in the energy sector, mainly the investors and insurance companies on one side and other stakeholders, on the other hand together must mobilize the finances and funds to achieve disaster risk resilience.

In this regard, a well-structured energy charter, fostering decentralized energy systems along with infrastructure grid connectivity between the neighbouring countries is highly recommended. Such a re-oriented energy model would not only enable the countries to address the challenge of preparedness for disaster risk but also ensure energy security for the region as a whole during the crises. Various bilateral and multilateral institutions for regional integration such as SAARC, BIMSTEC, BBIN, etc. must advocate more efficient and effective energy cooperation for energy transition as well as energy security for disaster risk management.

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We thank Mr. Yvo de Boer for joining as the Guest Adviser for the August 2020 issue of Energy Review.
Mr.Yvo de Boer is the President of Gold Standard Foundation, a non-profit organisation founded by WWF. He was formerly the Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC).

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