

FOR IMMEDIATE RELEASE CEEW COP-24 Press Briefing *Katowice, 3 December 2018* Contact: Arsheen Kaur <u>arsheen.kaur@ceew.in</u> (+91 9891021997) Vaibhav Gupta vaibhav.gupta@ceew.in (+91 9654149342)

# Living up to the deal: Expectations from COP-24

"The UNFCCC Conference of the Parties 24 (COP-24) is happening against a changed reality, climatically and politically. Once-in-a-century floods in Kerala, heat waves in Europe or unprecedented forest fires in California have headlined a year of extreme events, the intensity and frequency of which will continue to rise in a warming world. Yet, the political momentum behind the Paris Agreement has waned, there is growing doubt about the implementation of promised actions, and global emissions are on the rise again. If there is one expectation from COP-24, it is for Parties to live up to the deal," said Dr Arunabha Ghosh, CEO, CEEW, on the opening day of the COP-24 climate change summit being held in Katowice, Poland.

The Paris Agreement embodies the ethic of climate justice and must be "implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances" (Article 2.2). As talks begin in Katowice, there is a danger that political exigencies would once again dilute attempts to build strong foundations to implement the Agreement.

In order to avoid such an outcome, Ghosh reminded, "We have to recognise that COP-24 is an important staging post en route to effective implementation and enhancing ambition. We have four clear expectations from the talks:

- 1. Science must guide collective action on the basis of equity;
- 2. Paris Agreement Rulebook must support building capacity for transparency and ex ante reporting on climate finance;
- 3. Access to finance must become more just, equitable and differentiated; and
- 4. Recognise actors, initiatives and institutions that can strengthen collective action."

#### Expectation 1: Science must guide collective action on the basis of equity

The Special Report of the Intergovernmental Panel on Climate Change (IPCC) on 1.5 Degree Celsius (DegC) finds that the carbon space associated with achieving the 1.5 DegC target between 2010 and 2100 with a 66 per cent probability is 570 GigaTonnes of carbon dioxide (Gt-CO2), as opposed to the earlier estimate of 420 Gt-CO2).<sup>1</sup> This, however, does not mean that the carbon space available for the world has increased significantly. Current annual global carbon dioxide emissions are around 40 Gt-CO2. The increase in carbon space still implies a huge reduction in near-term emissions, followed by a significant decline over the course of the century.

Article 4.1 of the Paris Agreement recognises that emissions peaking will take longer for developing country Parties. The "balance between anthropogenic emissions by sources and removals by sinks of

<sup>&</sup>lt;sup>1</sup> Intergovernmental Panel on Climate Change (2018) *Global Warming of* 1.5°C : Summary for Policymakers, October. Available at: <u>https://www.ipcc.ch/pdf/special-reports/sr15/sr15\_spm\_final.pdf</u>



greenhouse gases in the second half of this century [would have to be] on the basis of equity..." It is critical that science must guide our collective action on the basis of equity.

"The increased carbon space cannot be interpreted as a reason to slow down efforts towards deep mitigation. If at all, it should be used to reduce the burden of mitigation on developing countries whose prospects for growth are encumbered by the shrinking carbon space," Ghosh said. "Global assessments so far have compared NDCs against a 2 DegC pathway. More stringent targets will need more equitable burden sharing."

CEEW undertook an uncertainty assessment across 200+ scenarios to understand India's progress towards its Nationally Determined Contribution (NDC) targets as well as to gain insights for its Mid-Century Strategy, given the uncertainties related to economic growth, technology costs, energy efficiency, and energy demand behaviour in end-use sectors.<sup>2</sup> Such kinds of assessments could build not only the analytical capacity of each country to efficiently tracking their domestic actions, but could also enable them to question and verify the actions of others during the facilitative sharing of views.

Integrated assessment models and energy models provide a robust understanding of key mitigation technologies, cost-effective pathways of mitigation, impact of current policies, etc. But domestic constraints and development priorities are the missing link between global and national mitigation pathways, as well as action on the ground. Within countries, national modellers should work closely and in tandem with domain experts from various sectors, including industry, transport, land-use, as well as experts from the financial world. A new kind of multi-stakeholder-driven integrated analysis will be needed to envisage and create policies and interventions that deliver on the ground and move global and national emission pathways to a world well below 2 DegC of average warming.

# Expectation 2: Paris Agreement Rulebook must support building capacity for transparency and *ex ante* reporting on climate finance

The Paris Agreement Rulebook must extensively cover the modalities, procedures and guidelines (MPGs) relating to several articles of the agreement, such as on climate actions (including the NDCs), means of support and finance, adaptation, and loss and damage. A successful conclusion of negotiations for the Rulebook would bring more clarity to climate commitments, the near-term outlook for climate action, and an effective stocktaking of where we are in due course of achieving the ambitious target of limiting temperature rise to well below 2 DegC.

COP-24 will need to give special attention to the following issues, and will need continued leadership from the outgoing and incoming COP presidencies.

# • Enhanced Transparency Framework: need for capacity building

The principal reason behind the need of having an enhanced transparency framework was to build mutual trust and confidence among Parties to promote effective implementation of the agreement. This involves maintaining a delicate balance between climate actions and

<sup>&</sup>lt;sup>2</sup> Chaturvedi, Vaibhav, Nagar Koti, Poonam, and Ramakrishnan Chordia, Anjali (2018) *Sustainable Development, Uncertainties, and India's Climate Policy: Pathways towards Nationally Determined Contribution and Mid-Century Strategy*, April, New Delhi: Council on Energy, Environment and Water. Available at: <u>https://www.ceew.in/publications/sustainable-development-uncertainties-and-india%E2%80%99s-climate-</u> policy



commensurate support. Another balance that needs to be maintained is between mitigation imperatives and the adaptation needs of the most vulnerable countries.

Ghosh said, "Ensuring assured support (via ex ante information), defining progress indicators (on action and support), and retaining flexibility for developing countries through a capacity improvement plan must be the priority areas of the envisaged Enhanced Transparency Framework."

There is a lot to learn from the experiences of countries regarding monitoring, reporting and verification (MRV). Lack of domestic capacity in many cases has meant that until now only 44 (out of 154) Non-Annex I Parties (representing about 28 per cent of developing countries) have submitted their first Biennial Update Report. An enhanced transparency mechanism should focus not only on compliance with reporting but also the prior need of building and sustaining capacity in developing countries.

A well-designed transparency mechanism must help to identify good practices, put in place a learning process and create conditions conducive to international benchmarking.<sup>3</sup> The Council evaluated submissions from 15 Parties or group of Parties on Agenda Item 5 of the Ad Hoc Working Group on the Paris Agreement (APA). The APA sessions reflect a wide range of divergent opinions, especially with regards to the structure and design of the MPGs and associated flexibilities in the light of respective capacity of the developing economies.

Ghosh said, "We believe that the design of the modalities, procedures and guidelines cannot lose the spirit of the Paris Agreement and, hence, there needs to be a differentiated and countrydriven reporting process. That said, the provisions of flexibility should not be seen as a blanket cover for reporting requirements. Instead, Parties must internalise the objective of improved reporting and transparency over time through capacity improvement plans. In our view, capacity improvement plans should find inputs from all Parties. Developing countries must highlight their needs more specifically, whereas developed countries must communicate ex ante information on assured support towards capacity building through such plans."

### • Climate Finance: *ex ante* reporting to improve *ex post* transparency

One hundred countries list international finance as being partially or fully conditional for the mitigation contributions in their NDCs; 70 countries make international finance partially or fully conditional for the adaptation contribution in their NDCs.<sup>4</sup> As against the requirements, the promised sum of USD 100 billion is nowhere near adequate. Actual contributions are a fraction of even that amount. Moreover, much of the limited climate finance is directed towards mitigation activities. Difficulties in tracking climate finance makes it harder to improve the balance between mitigation and adaptation activities. Without greater transparency of financial commitments, developing country Parties will also struggle to prioritise climate actions and take ownership of the implementation of projects.

<sup>&</sup>lt;sup>3</sup> Ghosh, Arunabha, and Prasad, Sumit S. (2017) 'Shining the Light on Climate Action: The Role of Non-Party Institutions' *CIGI Fixing Climate Governance Series* - Paper No 6, September. Available at: <u>https://www.cigionline.org/publications/shining-light-climate-action-role-non-party-institutions</u>

<sup>&</sup>lt;sup>4</sup> Based on Pauw, W.P, Cassanmagnano, D., Mbeva, K., Hein, J., Guarin, A., Brandi, C., Dzebo, A., Canales, N., Adams, K.M., Atteridge, A., Bock, T., Helms, J., Zalewski, A., Frommé. E., Lindener, A., Muhammad, D. (2016) NDC Explorer. German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), African Centre for Technology Studies (ACTS), Stockholm Environment Institute (SEI). DOI: 10.23661/ndc\_explorer\_2017\_2.0



In the same way that NDC statements reflect Parties' commitments and ambitions for climate action, *ex ante* information on climate finance is crucial for giving momentum to those ambitions. Transparency can help to convert the prisoners' dilemma into an assurance game.<sup>5</sup>

"Information on financial commitments would serve as an assurance mechanism to reinforce commitments and explore how dedicated support could raise the potential for further action," Ghosh said during the briefing.

• Global Stocktake: assess status now to examine gaps between commitment and delivery Article 14.1 of the Paris Agreement states that the COP shall periodically take stock of implementation to assess collective progress "...in the light of equity and the best available science." In the spirit of building mutual trust and confidence among the Parties, COP-24 should consider the emissions gap, which is being carried over thanks to the lack of adherence to pre-2020 commitments.

The Conference of the Parties has agreed to conduct a pre-2020 stocktake through special sessions at COP-24 and COP-25. This must be an outcomes-driven process, which should help to establish gaps in compliance of developed country Parties with regards to both mitigation as well as support. Sufficient clarity on these gaps would be necessary to add momentum to the actions falling short of targets and to build trust among the Parties.

The stocktake should safeguard the principles of equity and common but differentiated responsibilities so that a higher burden of responsibility can be shouldered by historical emitters. Parties should decide common timeframes while retaining their own self-defined NDC architectures. The Global Stocktake should also enforce monitoring and evaluation of climate finance. A clear accounting of the impact achieved by climate finance and associated support activities would help to replicate successful initiatives and help to distribute finance in an equitable manner.

#### Expectation 3: Access to finance must become more just, equitable and differentiated

CEEW believes that for a sustainable low-carbon transition, the developing world needs not free technology or tied aid grants but fit-for-purpose financial products, which enable the deployment – at scale – of climate-friendly solutions in seemingly difficult environments. The absence of such financial instruments makes investment in clean technologies risky and prevents capital from flowing from where it is in surplus to regions where it is most needed.<sup>6</sup>

Ghosh argued, "Climate finance, as currently configured, is unjust, inequitable and undifferentiated. For it to be just, climate-friendly projects in poorer countries must have access to finance without having to carry undue burden in terms of significantly higher rates of interest. For it to be equitable,

<sup>&</sup>lt;sup>5</sup> Chayes, Abram, and Antonia Handler Chayes, *The New Sovereignty: Compliance with International Regulatory Agreements*, First ed. (Cambridge, Massachusetts: Harvard University Press, 1995), p. 144.

<sup>&</sup>lt;sup>6</sup> Chawla, Kanika, Waldron, Michael, Dutt, Arjun, Aggarwal, Manu, Toril, Alberto, and Nobuoka, Yoko (2018) *Clean Energy Trends: Evolving Investment Landscape for Grid-Connected Renewable Energy Projects in India*, June, New Delhi and Paris: Council on Energy, Environment and Water; International Energy Agency. Available at: https://www.ceew.in/publications/clean-energy-investment-trends

Chawla, Kanika, Aggarwal, Manu, Viswamohanan, Anjali, Dutt, Arjun, and Kuldeep, Neeraj (2018) *Risks in Renewable Energy Markets in Emerging Economies: Spotlight on South Africa and Indonesia*, June, New Delhi: Council on Energy, Environment and Water. Available at: <u>https://www.ceew.in/publications/risks-renewable-energy-markets-emerging-economies</u>



finance should be available where it is needed the most i.e. capital-poor regions, rather than merely circulating within capital-surplus countries. And for it to be differentiated, access to finance must be in line with the opportunities to mitigate and adapt. Finance, like justice, might be blind but it is blind in a way that it flows only where the returns, rather than the needs, are greatest. There can be no progress on climate finance unless these fundamental flaws are corrected."

CEEW has been working on multiple market-responsive and tactical de-risking mechanisms, which can advance clean energy deployment in emerging economies. These are fit-for-purpose instruments for advancing the pace and efficiency of the energy transition. Two such instruments are the Common Risk Mitigation Mechanism (CRMM)<sup>7</sup> and the Grid Integration Guarantee (GIG)<sup>8</sup>. Both these instruments respond to market needs, and are based in evidence-based analysis.

The CRMM addresses political risk, forex risk, and off-taker risk for solar projects in solar resourcerich but finance-constrained economies. CRMM addresses the dominant non-project-specific risks with a single mechanism that creates a pipeline of investment-grade projects. Put simply, the CRMM pools many risks across many countries to significantly lower the cost of hedging for developing countries.

The GIG is a more specific instrument designed to address the risk posed by the technical limitation of the grid to integrate an increasing share of renewable energy. Electricity grids in the developing world need technological upgrades, which have long gestation periods. Renewable energy installations outpace these grid improvements, making renewable energy projects increasingly prone to backdown. The GIG addresses the risk of both commercial and technical backdown, thereby spurring market activity even as grid improvements remain underway. Put simply, the GIG allows RE deployment in developing countries to be not hamstrung by weak grids.

"In pursuit of an architecture for just, equitable and differentiated finance, in January 2019 The Council will launch a new <u>Centre for Energy Finance</u>, which would create, test and deploy financial solutions to advance the energy transitions in emerging economies," Ghosh announced.

#### Expectation 4: Recognise actors, initiatives and institutions that can strengthen collective action

Fulfilling commitments for climate actions, enhancing transparency and raising ambitions need additional actors and institutions. The involvement of non-state actors is crucial in terms of voluntary commitments, mobilising additional finance (over and above the commitment of public funds), and devising innovative ways to integrate and support adaptation and resilience in development activities.

• Improving data for reporting and informing national policies through independent assessments

There are many recent examples, including from developing countries, of non-state actors building the capacity to build greenhouse gas inventories, assessing the impact of climate actions, and developing scenarios.

<sup>&</sup>lt;sup>7</sup> Council on Energy, Environment and Water, Confederation of Indian Industry, The Currency Exchange Fund, and Terrawatt Initiative (2017) 'Common Risk Mitigation Mechanism' Feasibility Report, November. Available at: <u>https://www.ceew.in/publications/common-risk-mitigation-mechanism</u>

<sup>&</sup>lt;sup>8</sup> Council on Energy, Environment and Water (2018) 'Curtailing Renewable Energy Curtailment' June. Available at: <u>https://www.ceew.in/publications/addressing-renewable-energy-curtailment</u>



- In 2013, Climate Observatory (a Brazilian network of climate-related NGOs) began an initiative called <u>SEEG</u><sup>9</sup> to present comprehensive GHG estimates for Brazil. The datasets of the first edition include emissions from 1970 to 2014, related to all segments of the national economy. These datasets are available online with free access to researchers, journalists, decision makers and the general public.
- In 2015, six civil society organisations in India jointly developed <u>GHG Platform India</u>.<sup>10</sup>
  This platform complements the existing efforts of the Government of India by addressing data gaps and data accessibility issues, and thereby exceeds the scope of national inventories.
- The Carbon Transparency Initiative<sup>11</sup> (run by ClimateWorks Foundation) creates development scenarios, drawing on current policy scenarios and energy-related investments. Under the initiative, independent researchers are developing models for China, the European Union, India, Mexico and the United States. Such efforts help to standardize methods for evaluating mitigation policies and comparing their impacts across countries. Such approaches could then feed into the review process. Such approaches could feed into the technical review and stocktaking processes.
- <u>Climate Action Tracker</u>, a collaborative project of three research institutions<sup>12</sup>, conducts an independent assessment of the NDCs and actions of all countries. According to its November 2016 assessment, even if all of the NDCs were fully implemented, temperatures would rise by 2.8°C above pre-industrial levels by 2100.
- The <u>carbonn Climate Registry</u> (an initiative of ICLEI Local Governments for Sustainability) helps local and subnational governments by offering a clear framework for structuring their climate data. It facilitates GHG reduction commitments, the development of emissions inventories, and reporting on climate mitigation and adaptation actions. The registry serves as an important tool for advocacy and also as the global response of local and subnational governments toward MRV of their own climate actions.

Closer coordination between state and non-state actors could have a multiplier effect in terms of building capacity and meeting climate goals more efficiently and in more sustainable ways. At the country level, non-governmental organisations could do so by improving data for reporting; conducting independent assessments for reviews; informing the global stocktake; and assessing collaborative platforms and initiatives launched in parallel to the Paris Agreement. Internationally, a group of UNFCCC-accredited research and independent NGOs (RINGOs) could form a task force, with the mandate to share practices, and develop common standards and support capacity building. Philanthropic foundations, the Capacity Building Initiative for Transparency Trust Fund, and host governments could provide financial assistance.<sup>13</sup>

<sup>&</sup>lt;sup>9</sup> Sistema de Estimativa de Emissões de Gases de Efeito Estufa (translated as Greenhouse Gas Emissions Estimate System); see <u>http://seeg.eco.br/en/o-que-e-o-seeg/</u>

<sup>&</sup>lt;sup>10</sup> Council on Energy, Environment and Water (CEEW), The International Maize and Wheat Improvement Center (CIMMYT), Center for Study of Science, Technology and Policy (CSTEP), ICLEI - Local Governments for Sustainability, Shakti Sustainable Energy Foundation, Vasudha Foundation. WRI-India serves as a peer reviewing institution for this initiative.

<sup>&</sup>lt;sup>11</sup> www.climate-transparency.org/about/partner

<sup>&</sup>lt;sup>12</sup> www.climateactiontracker.org/

<sup>&</sup>lt;sup>13</sup> Ghosh, Arunabha, and Sumit S. Prasad (2017) 'Shining the Light on Climate Action: The Role of Non-Party Institutions' *CIGI Fixing Climate Governance Series* - Paper No 6, September. Available at: https://www.cigionline.org/publications/shining-light-climate-action-role-non-party-institutions.



#### • Integrating climate-friendly projects with development priorities in India

#### Solar for irrigation

India has demonstrated global leadership in the use of solar energy for irrigation. Solar pumps are uniquely placed to support both mitigation and adaptation, and increasing farmers' resilience against adverse effects of climate change. India has already deployed close to 250,000 solar irrigation pumps. Innovators have developed mobile solar pumps, e-rickshaw mounted solar pumps, micro solar pumps, solar pumps for salt farmers, etc. Entrepreneurs are using different business models, such as stand-alone off-grid pumps, community installations, pumping-as-a-service model, deployments under the joint-liability-group model, grid-connected solar pumps, and solarisation of entire agricultural feeders. No other country in the world has experimented with and piloted such diverse approaches.<sup>14</sup>

CEEW has developed a pan-India district-level decision support tool, drawing on 20 parameters, which could help policymakers, administrators, entrepreneurs and financiers make informed decisions about where to expect maximum returns on investment.<sup>15</sup> This kind of data-driven decision-making could be used in rural areas of other developing countries and help to create a pipeline of high-impact projects.

#### Solar for Health

In 2017 CEEW conducted an independent evaluation to understand the impact of improved electricity access on the provision of health services in rural Chhattisgarh state in India. The evaluation of more than 140 primary health centres (PHCs) indicates that that solar systems could augment electricity supply in primary health centres and significantly improve in-patient services, out-patient services, emergency care, and delivery services in rural India.<sup>16</sup> UNDP's 'Solar for Health' initiative already supports governments to increase access to quality health services through solar PV systems. There is significant potential for using distributed renewable energy to deliver public health services in developing countries.<sup>17</sup>

#### Zero-budget Natural Farming

In June 2018, the Indian state of Andhra Pradesh declared that by 2024 six million farmers in the state would shift to natural farming practices. Having already converted more than 354,000 farmers to natural farming, this would be the largest such programme in the world with the aim of increasing the resilience of farmers to climate variability, reduce their dependence on chemical inputs, increase yields and incomes. CEEW has found that the potential social, economic and environmental impacts of this programme, alone, could help the state make progress towards a quarter of all 169 targets under the Sustainable Development Goals.<sup>18</sup>

<sup>&</sup>lt;sup>14</sup> Raymond, Anne, and Jain, Abhishek (2018) *Solar for Irrigation: A Comparative Assessment of Deployment Strategies*, January, New Delhi: Council on Energy, Environment and Water. Available at: <a href="https://www.ceew.in/publications/solar-irrigation">https://www.ceew.in/publications/solar-irrigation</a>

Agrawal, Shalu, and Jain, Abhishek (2018) 'Financing Solar for Irrigation in India: Risks, Challenges, and Solutions', January, New Delhi: Council on Energy, Environment and Water. Available at: https://www.ceew.in/publications/financing-solar-irrigation-india

<sup>&</sup>lt;sup>15</sup> Council on Energy, Environment and Water (2018) 'Solar Pumps Tool' <u>https://portal.ceew.in/</u>

<sup>&</sup>lt;sup>16</sup> Ramji, Aditya, Patnaik, Sasmita, Mani, Sunil, and Dholakia, Hem H. (2017) *Powering Primary Healthcare through Solar in India: Lessons from Chhattisgarh*, August, New Delhi: Council on Energy, Environment and Water. Available at: <u>https://www.ceew.in/publications/powering-primary-healthcare-through-solar-india</u>

<sup>&</sup>lt;sup>17</sup> Dholakia, Hem H. (2018) Solar powered healthcare in developing countries, *Nature Energy* 3, 705-707. Available at: <u>https://www.nature.com/articles/s41560-018-0205-1</u>

<sup>&</sup>lt;sup>18</sup> Tripathi, Saurabh, Shahidi, Tauseef, Nagbhushan, Shruti, and Gupta, Niti (2018) 'Zero Budget Natural Farming for the Sustainable Development Goals, Andhra Pradesh, India', September, New Delhi: Council on



## • Parallel platforms for climate leadership – the International Solar Alliance

India seeks to tap every ray of the sun with its ambitious renewable energy targets. It believes that its experiences at home lend lessons for and opportunities for collaboration with other countries. This is why India and France partnered to launch the International Solar Alliance.

ISA is designed to be a platform to bring together countries with rich solar potential along with solar innovators, developers, and financiers. With a specific focus on developing countries, which are rich in solar resource but limited by technology and capital constraints, the ISA aims to help countries scale up the deployment of solar energy to meet their energy needs. The value proposition of the ISA is to create a buyers' market for solar, such that aggregation of solar demand across member countries can bring down prices, facilitate the scaling up of solar deployment, and encourage collaborative innovation of fit-for-purpose solar applications.

ISA became a treaty-based international intergovernmental organisation on 6 December 2017. It currently has 71 signatory member countries, of which 48 have ratified the ISA Framework Agreement. The founding conference hosted in March 2018, and the recent inaugural meeting of the ISA General Assembly on 3 October 2018, set the stage for the ISA to display action that creates real value for its members. In order to do so, the ISA has effectively recognised five concrete areas of work. These include: Scaling solar applications for agricultural use; mobilising affordable finance at scale; scaling solar mini-grids; scaling solar rooftops; and scaling solar emobility and storage. These programmes now have to deliver on their promises.<sup>19</sup>

Ghosh concluded, "These initiatives demonstrate that there are resources and platforms that have not been tapped sufficiently. Non-state actors can build capacity for reporting and transparency; subnational actions dovetail many sustainable development objectives; and new international platforms can bring together governments, investors and developers to aggregate and de-risk projects across many countries. The implementation of the Paris Agreement will remain contingent on scaling such interventions before Parties have the confidence to enhance ambitions."

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In 2018, CEEW once again featured extensively across nine categories in the '2017 Global Go To Think Tank Index Report', including being ranked as South Asia's top think tank (14th globally) with an annual operating budget of less than USD 5 million for the fifth year in a row. In 2016, CEEW was also ranked 2nd in India, 4th outside Europe and North America, and 20th globally out of 240 think tanks as per the ICCG Climate Think Tank's standardised rankings. In 2013 and 2014, CEEW was rated as India's top climate change think-tank as per the ICCG standardised rankings. Visit us at <a href="http://ceew.in/">http://ceew.in/</a> and follow us on Twitter @CEEWIndia.

Energy, Environment and Water. Available at: <u>https://www.ceew.in/publications/zero-budget-natural-farming-sustainable-development-goals-0</u>

<sup>&</sup>lt;sup>19</sup> Ghosh, Arunabha, and Chawla, Kanika (2018) 'The Global Solar Alliance must catalyse innovation', *Hindustan Times*, 16 March.