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G20: HOW INDIA CAN DRIVE GLOBAL CLIMATE AND ENERGY ACTIONS FORWARD

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As the President of this year's G20, India has the opportunity to demonstrate strong international leadership, and create new global momentum on climate action. The G20 economies account for about 75% of global greenhouse gas emissions and represent around 80% of global GDP¹ – what they do, matters. We identify five areas for India to champion concrete G20 action on energy transition, climate finance and climate-resilient development.

India has made strong progress on its climate goals. It has set ambitious targets on energy transition by 2030 (achieving 500 GW of non-fossil capacity and 50% renewables generation), and a net zero emissions goal by 2070. Globally, India has championed accelerating renewables deployment by setting up the International Solar Alliance (ISA) with France, highlighting the importance of disaster risk reduction at the G20 by setting up the Coalition for Disaster Resilient Infrastructure, and advocating for a higher climate finance target and transition support for developing countries at COP27.²

But efforts are still far off track to meet the pace of transition and scale of ambition required. Current global commitments would see us overshoot both 1.5 °C and 2 °C.³ Moving towards a climate-resilient future and meeting

¹ Climate Analytics, World Resources Institute, 2021, **Closing the gap: the impact of G20 climate commitments on limiting global temperature rise to 1.5°C.**

² The Hindu, 2022, **COP27 | India insists on higher global climate finance target by 2024**

³ IUNFCCC, 2022, **Climate Plans Remain Insufficient: More Ambitious Action Needed Now**



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development goals will require rapid expansion of renewables this decade and concerted efforts to phase out fossil fuels. Clean energy investments need to quadruple⁴ especially in emerging and developing economies (EMDE), where 40% of investment and emission reductions need to happen, yet.⁵

Globally, political momentum has increased. On energy, we have seen commitments towards coal phase-down at COP26 and 27, India and others mooting an all fossil fuels phase-down since COP27,⁶ and calls for a global renewable energy target (G7 and Petersburg Climate Dialogue).⁷ On finance, there are calls to mobilise \$1 trillion per year in climate finance to EMDE (excluding China),⁸ and increase political energy around closing the finance gap (e.g. France's Summit for a new global financial pact,⁹ Spain and IEA's Climate and Energy Summit,¹⁰ Kenya and the African Union's Africa Climate Action Summit¹¹). Countries are also facing deadlines for their nationally determined contributions (NDCs) – solidifying the momentum to move from commitments to results.

As a voice from the Global South, the Indian G20 presidency could champion equitable and fast-tracked actions needed in this decade to meet both development and climate goals.¹² Progress in the G7 and G20 discussions will play an important role in setting the tone and ambition into COP28. This will also help set up a robust Global Stocktake response that prompts countries – especially the G20 – to align their NDCs with the Paris Agreement goals.

⁴ IEA, 2022, **World Energy Outlook 2022**

⁵ IEA, 2021, **Financing Clean Energy Transitions in Emerging and Developing Economies**

⁶ Krishnamurthy Rohini, 2022, **COP27: Cover decision text makes no mention of all fossil fuels; India displeased**

⁷ Golubkova, Katya, and Obayashi, Yuka, 2023, **G7 ministers set big new targets for solar and wind capacity** and Jordans Frank, 2023, **Climate talks see push for global renewable energy target**

⁸ Songwe, Stern, Bhattacharya, 2022, **Finance for climate action: Scaling up investment for climate and development**

⁹ Focus2030, 2023, **Summit for a new global financial pact: Towards more commitments to meet the 2030 agenda?**

¹⁰ Spain and IEA, 2023, **Spain and IEA to host international Climate and Energy Summit in October aimed at building grand coalition to keep 1.5 °C within reach**

¹¹ The Government of Kenya and the African Union Commission, 2023, Africa Climate Action Summit

¹² India has proposed six priorities under the energy transitions working group (ETWG) and three under the sustainable finance working group (SFWG) for G20. ETWG: addressing technology gaps for energy transition; low-cost financing for energy transition; energy security and diversified supply chains; energy efficiency, industrial low carbon transitions, and responsible consumption; fuels for future; universal access to clean energy and just, affordable, and inclusive energy transition pathways. SFWG: mechanisms for mobilisation of timely and adequate resources for climate finance; enabling finance for the Sustainable Development Goals; capacity building of the ecosystem for financing toward sustainable development. (G20 Presidency India, 2023: **2nd (ETWG) meeting; 2nd G20 SFWG Meeting**)



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E3G has identified five opportunities for the G20 to deliver progress and drive ambition forward:

1. **Accelerating renewable energy deployment:** G20 countries could send stronger market signals to encourage faster transition by committing to achieve over 40% affordable and reliable electricity generation from wind and solar PV by 2030,¹³ and more than 1 TW annual global renewable capacity additions by 2030.¹⁴ This should include actions to accelerate renewables deployment (including distributed renewables), strengthen grids, and drive higher investments in EMDE. Achieving these targets and delivering economic benefits for countries will also need resilient and diversified supply chains, and closer cooperation on research and development – some of the key priorities for the presidency.¹⁵
2. **Avoiding stranded assets from all fossil fuels:** India could build on the support for its proposition at COP27 to highlight the need to transition out of all fossil fuels (including oil and gas) in climate mitigation efforts.¹⁶ In addition, G20 countries could aim to end support for new unabated coal-fired power plants. This would send the market signals needed to accelerate the transition and help governments avoid stranded assets that could become liabilities in many G20 countries.
3. **Shifting the conversation towards local, demand-led energy transition:** India can further expand its LiFE (Lifestyle for Environment) initiative¹⁷ that aims to integrate sustainability into people's lifestyles. As decarbonisation and energy systems get increasingly localised, systemic and strong political signals need to be given for more granular solutions that are traditionally not well accounted for in national energy and resource planning. India can steer G20 ambition towards local, more people-centric solutions such as demand-side solutions, energy efficiency, and end-use electrification (e.g., electric vehicles, efficient buildings, heat pumps), which play a central role in providing an efficient, affordable and equitable energy transition.
4. **Narrowing finance gaps for just transitions and climate preparedness:** The G20 can champion solutions to drive down the cost of capital for renewable

¹³ IEA, 2022, **World Energy Outlook 2022**

¹⁴ IRENA, 2023, **World Energy Transition Outlook 2023 – 1.5°C Pathway** and IEA, 2022, **World Energy Outlook 2022**

¹⁵ G20, India, 2023, **2nd Energy Transitions Working Group (ETWG) meeting to be held in Gandhinagar, Gujarat, from 2nd-4th April, 2023**

¹⁶ Krishnamurthy Rohini, 2022, **COP27: Cover decision text makes no mention of all fossil fuels; India displeased**

¹⁷ The Government of India, **Lifestyle for Environment - LiFE**



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and climate investments in EMDE, and promote equitable distribution of clean energy investments and flow of climate finance, particularly concessional public finance, across countries. This requires picking up work kickstarted under former G20 presidencies but also work done by the G7 in 2023 on ensuring alignment of financial flows and private investment with the needs of the transition. India's G20 can build on last year's Bali Compact¹⁸ and strengthen its mandate to development banks that can bring forward the much-needed concessional capital.

5. **Enabling accelerated just transitions:** The G20 could commit to developing inclusive just transition principles and guidelines, supporting planning and pilots, and establishing experience-sharing networks. Developing an ecosystem of support for just transitions through enhanced support – technical, financial, and knowledge networks – can help in accelerating action. Employment, gender equality, and socio-economic development are key aspects of a just and inclusive transition. Distributed renewables and other small-scale technologies provide opportunities for growth in jobs, while eliminating energy poverty in underserved communities.

We explain the critical signals for each priority and the rationale behind them in the following table.

¹⁸ G20 Energy Transitions Ministers' Meeting, 2022, **Bali Compact**



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Priority	Critical signal	Rationale
<p>Accelerating renewable energy deployment</p>	<ul style="list-style-type: none"> > Agree to a shared commitment on accelerating deployment of affordable, commercially proven clean energy technologies (including decentralised solutions) with the goal to achieve over 40% of electricity generation from wind and solar PV by 2030. > Agree to increase the rate of annual clean energy deployment with an aim of reaching more than 1 TW/year of global renewable capacity before 2030 with equitable geographic distribution. > Call on countries to ramp up decentralised renewable energy deployment, strengthening climate resilience, creating jobs and supporting livelihoods, and alleviating energy poverty. > Agree to advance cooperation under the RD20 Platform (Research and Development 20) to support rapid scale-up of renewables. > Make a declaration on collective efforts to ensure energy security and diversified supply chains of clean energy sources to enhance economic opportunities. 	<ul style="list-style-type: none"> > Despite record renewable capacity additions worldwide in 2022 (nearly 300 GW), it is much slower than the required rate to keep 1.5 °C within reach. > Under a 1.5 °C scenario, new renewable capacity needs to be at least 1.06 TW/year by 2030 according to IRENA. The IEA’s figure is 1.2 TW/year, four times the current rate, where solar and wind would generate over 40% of electricity globally.¹⁹ The eventual deployment rate will need to be even higher if the gap between implementation and what is needed continues to grow. > IRENA’s recent report shows that investment in off-grid renewable energy solutions in 2021 was a fraction of what is needed annually to progress towards universal energy access, and thus needs special attention.²⁰ > IRENA’s WETO projects that ambitious renewable growth can create double the number of jobs in the renewable sector by 2030 compared to reference case scenario (Planned Energy Scenario) based on existing governments’ energy plans and targets. > Rapid deployment of renewable energy systems can deliver economic benefits to all. G20 governments can work together to expand, diversify, and build fair

¹⁹ IEA, 2022, **World Energy Outlook 2022**

²⁰ IRENA, 2023, **Global Landscape of Renewable Energy Finance 2023**



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		<p>renewable supply chains to remove bottlenecks. This can help in accelerating equitable deployment.</p> <ul style="list-style-type: none"> > The International Solar Alliance is an effective leader for championing an ambitious global renewables target, supporting countries in deployment, and strengthening supply chain security. > India is one of the world leaders in renewable energy with ambitious domestic renewable targets. Promoting the need for an increase in collective G20 ambition on renewables under its presidency can help in sending strong market signals and stimulate investments.
<p>Avoiding stranded assets from all fossil fuels</p>	<ul style="list-style-type: none"> > Agree to accelerate just and equitable phase down unabated fossil fuels, starting with decarbonised electricity sector in OECD no later than 2035, followed by non-OECD countries with support for their transition and phase-down efforts. > Recognise the need to end construction of new unabated coal-fired power generation and advocate for a no new unabated coal plants commitment by G20 countries. 	<ul style="list-style-type: none"> > India’s G20 presidency can strengthen the momentum building in support of India’s proposal to include language on fossil fuel phase-down at COP27. At least 80 countries supported this proposition at COP27.²¹ > The IPCC AR6 WGIII report highlights the need for accelerated decline in fossil fuel consumption in the next 30 years. The steepest decline is needed in coal to keep a temperature rise limited to 2 °C or 1.5 °C (with low or no overshoot) within reach.²² While countries will follow different pathways based on national circumstances, continuing to build new coal plants and

²¹ Lewis, Aidan, Mcfarlane, Sarah, & Volcovici, Valerie, 2022, **COP27 climate summit missed chance for ambition on fossil fuels, critics say**

²² IPCC, 2022, **Summary for Policymakers, Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change**



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Priority	Critical signal	Rationale
		<p>fossil infrastructure endangers energy security and increases the risk of stranded infrastructure and sunk investments. New fossil infrastructure will also increase future transition costs and may jeopardise efforts to limit warming. By 2050, almost all electricity will need to be supplied from zero- or low-carbon sources.</p>
<p>Shifting the conversation on local, demand-led energy transition</p>	<ul style="list-style-type: none"> > Agree to develop and implement a roadmap to double energy efficiency by 2030 – and have it sufficiently backed up by organisational resources. > Build on the positive development from the 2022 G20 Bali Roadmap and develop a policy toolbox for the deployment of energy system/sector integration technologies with priorities on digitalisation, smart grid technologies, energy storage and other demand-side solutions. > Encourage sustainable consumption and production by corporations and large institutional consumers who have the resources and scale to implement change. > Recognise the importance of developing climate-resilient development pathways with equal effort on mitigation and adaptation. 	<ul style="list-style-type: none"> > The IPCC AR6 report and WGIII contribution state that demand-side measures have high emission reduction potential and encourage G20 countries to adopt appropriate demand-side measures to reduce emissions and provide access to affordable energy for all. > IEA’s net zero by 2050 scenario requires on average 4% reduction of global primary energy intensity between 2020 and 2030, which calls for at least doubling of energy efficiency gains compared to historical rates. Energy efficiency offers some of the fastest and most cost-effective actions to reduce emissions. > The Coalition for Disaster Resilient Infrastructure (CDRI) can help in mobilising support for building efficient and disaster-resilient infrastructure.
<p>Narrowing financing gaps for just transition and climate preparedness</p>	<ul style="list-style-type: none"> > Develop a roadmap for mobilising adequate low-cost international finance towards deployment of critical technologies with a focus on emerging, developing, and least developed countries (LDC). The roadmap should build on and enhance work done by the G20 Sustainable Finance Working 	<ul style="list-style-type: none"> > IRENA’s Global Landscape of Renewable Energy Finance 2023 Report highlights that, despite reaching \$500bn in 2022, RE investments will need to more than quadruple to keep 1.5 °C within reach.



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	<p>Group under previous presidencies, as well as by the G7 in 2023, including in the Climate & Energy track and Finance track.</p> <ul style="list-style-type: none"> > Call on official sector development lending to reach \$500 billion annual stimulus to address the polycrisis, aligned with the UN’s SDG Stimulus Plan. > Deliver ambitious benchmarks for MDBs to mobilise necessary climate finance (public and private) and address systemic barriers in finance and technology to better support countries to scale up transformative investments needed. > Agree that G20 countries will commit to mobilising dedicated finance domestically to develop and implement social packages for facilitating just transitions. 	<ul style="list-style-type: none"> > More than half of the world’s population received less than 15% of global renewables investments in 2022. Least Developed Countries received less than 1% of RE investments between 2013 and 2020. > International climate finance is below what is needed, and most of it still goes towards mitigation. The UN estimates annual adaptation investments needed from both domestic and international finance range between \$160bn and \$340bn by 2030, and between \$315bn and \$565bn by 2050.
<p>Enabling accelerated just transitions</p>	<ul style="list-style-type: none"> > Aim to develop inclusive just transition guidelines and principles to aid just energy transition planning and achieving SDGs. > Acknowledge that employment and socio-economic development are key aspects of just and inclusive transitions and highlight that distributed renewables and other small-scale technologies provide the biggest growth in jobs (SDG 8), while eliminating energy poverty in underserved communities (SDG 7). > Call for an increase in technical and financial support for implementing just transition strategies in EMDE and LDC. > Develop a compendium of lessons learned on just transition experiences among G20 countries and promote setting up an inter-country multi-stakeholder knowledge exchange network on just transition practices. 	<ul style="list-style-type: none"> > As countries move towards phasing down fossil fuels, this transition will transform sectors and employment, creating growth potential in some and leading to the decline of others. The pace and scale of impact may vary between sectors, with risks of workers, communities, and regions losing out without advanced planning, and sufficient and timely support. > Sharing experiences of transition planning and creating multi-stakeholder knowledge networks can help in better understanding the extent of resources needed to implement just transition strategies, such as skill development, capacity building (local municipal and community), and building social infrastructure.



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About E3G

E3G is an independent climate change think tank with a global outlook. We work on the frontier of the climate landscape, tackling the barriers and advancing the solutions to a safe climate. Our goal is to translate climate politics, economics and policies into action.

E3G builds broad-based coalitions to deliver a safe climate, working closely with like-minded partners in government, politics, civil society, science, the media, public interest foundations and elsewhere to leverage change.

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