

EU-INDIA CLIMATE COOPERATION BRIEF



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I. Background and purpose of the policy brief

At their joint summit in May 2020, India and the EU agreed on the “EU-India Strategic Partnership: A Roadmap to 2025”. Climate change and clean energy, as well as the environment more broadly, are a distinct element within that roadmap. Both Parties committed to continue the Clean Energy and Climate Partnership established at the 2016 Summit. In the EU-India Leaders’ Meeting, 8 May 2021, both Parties agreed on a sustainable connectivity partnership, which includes a number of climate relevant elements, and also highlighted the first “EU-India High-Level Dialogue on Climate Change” which took place a few weeks before. The 2021 meeting has been subject to some high-level analysis both by Indian think tanks as well as for example by CAN Europe.¹

No major bilateral summit took place between India and the EU in 2022, and none seems to be currently scheduled for 2023. However, with India’s role as G20 presidency, to which also the EU is a member (in addition to various EU Member States), as well as with increased attention to Just Energy Transition Partnerships, there is a particular momentum and usefulness to take a look at the cooperation between the EU and India in the area of climate and energy, with a focus on just and inclusive transitions and equitable partnership. There is also a need to strengthen EU and Indian civil society voices towards the Partnership.

The purpose of this policy brief is to assess the progress and state of implementation of the EU-India Clean Energy and Climate Partnership since its establishment in 2015, as well as providing recommendations from an EU-Indian civil society perspective. The EU and India have committed to continuing this partnership, which is a key element in their strategic partnership roadmap to 2025. The focus of this joint research by CAN South Asia and CAN Europe, with support from the European Climate Foundation, is on understanding the level of ambition and progress made since 2021, which requires deeper analysis of related information on activities undertaken by the partnership, as well as the perspectives of main stakeholders and civil society involved on both sides.

The preparation of this brief has also drawn on initial stakeholder consultations in India and Europe. As it is planned to update the paper ahead of COP28 in light of recent developments, this is considered a *consultation draft*, with further inputs and observations of experts and stakeholders from both regions welcome. These should be sent to Shailendra Yashwant (CAN South Asia), shai@cansouthasia.net

¹ For example <https://www.teriin.org/project/india-eu-track-ii-dialogue> and <https://caneurope.org/why-eu-india-2021-leaders-meeting-must-further-drive-ambitious-climate-action/>

II. India and EU: why they matter on climate action

The EU and India share a significant economic relationship, with the former being India's largest trading partner and a significant source of foreign direct investment. However, both countries are also major contributors to global greenhouse gas emissions, with the EU being the fourth-largest emitter and India being the third-largest emitter (in current emission levels), although India's per capita levels are less than one third of the EU's (see table below). India, in particular, is heavily dependent on coal as a source of primary energy, which has led to a high carbon intensity in its economy.

Table 1: Comparison of select demographic and climate data for the EU and India

Parameters	EU	India
Population	446 million	1417 million
Population Density	108.8 person/km ²	464 person/km ²
Land Area	4 million km ²	3.27 million km ²
GDP	USD 16.6 trillion	USD 318 billion
Current GHG Emissions	4 th largest emitter (9 per cent)	3 rd largest emitter
Historic responsibility since 1850	Germany (6 th), France (12 th), Poland (17), Italy (19) in top 20 historical emitters	7 th largest emitter ²
Current per capita emissions	6.28 t CO ₂	1.93 t CO ₂
Carbon Intensity (IEA)	0.15 metric tons of CO ₂ per thousand dollars of GDP in 2019	0.4 metric tons of CO ₂ per thousand dollars of GDP in 2019
Renewable energy (IREA)	Total installed renewable energy capacity of around 468 GW in 2020	Target of 175 GW of renewable energy capacity by 2022, which includes 100 GW of solar power (Current – 94GW)
Energy Efficiency	<p>Dropping significantly in 2020 (C-19), energy consumption has rebounded.</p> <p>Binding target for final energy consumption, indicative target for primary energy consumption for 2030 based on 2020 forecasts³</p>	<p>Commitment to reduce carbon intensity economy by 45% by 2030 over 2005 levels</p> <p>Energy Conservation (Amendment) Bill (2022) - mandates use of non-fossil sources and carbon credit trading</p>

² <https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change/>

³ <https://www.eea.europa.eu/ims/primary-and-final-energy-consumption>

Despite this, India has taken ambitious steps to promote renewable energy and has set targets to increase its capacity for generating electricity from renewable sources. The country has already made significant progress towards achieving its target of 175 GW of renewable energy capacity by 2022, with 168.96 GW installed as of March 2023.⁴ When updating its Nationally Determined Contribution in 2021, India increased its 2030 target to 450 GW installed capacity. India has also taken a leadership role in promoting clean energy globally, being a founder of the International Solar Alliance and the Coalition for Disaster Resilient Infrastructure.

The EU, meanwhile, has set its own targets for reducing greenhouse gas emissions and increasing renewable energy capacity. The EU has committed to reducing its emissions by at least 55% by 2030 compared to 1990 levels and has set a target of achieving 40 per cent of its electricity generation from renewable sources by 2030. The EU is currently the world's largest producer of renewable energy and has been providing support for Indian projects on climate action, sustainability, and clean energy.

Both the EU and India have recognised the importance of combating climate change and have been cooperating with each other on various issues related to climate action, such as clean energy, water, urban development, and resilience to climate change impacts. However, the reality is also that both parties' NDCs are judged insufficient and incompatible with fair pathways for the 1.5°C limit by some analyses.⁵ For example, CAN Europe has been arguing for years that the EU should aim to reduce emissions by at least 65 per cent by 2030. Nevertheless, the partnership between the EU and India has the potential to play a significant role in reducing global greenhouse gas emissions and promoting a sustainable future.

⁴<https://economictimes.indiatimes.com/industry/renewables/indias-renewable-energy-capacity-reaches-168-96-gw-till-feb-2023-minister-r-k-singh/articleshow/98862427.cms>

⁵ <https://climateactiontracker.org/countries/india/>

III. EU India Partnership: Strategic Direction

The European Union and India commit to share values of democracy, human rights, fundamental freedoms and support the rule based global order. With this respect, the EU and India have had strong ties in strategic partnership since 2004. In 2018, the EU developed a vision for a strategy to strengthen cooperation and the partnership with India. The Strategy aims to strengthen the EU-India Strategic Partnership by focusing on sustainable modernisation and on common responses to global and regional issues, and provides the policy framework for the EU's deeper and broader engagement with India over the coming years. Some of the key themes of partnership included modernisation, environment energy and climate change, trade and investment, innovation, reinforcing cooperation on foreign policy, promoting effective multilateralism, developing security and defence cooperation and building on common values and objectives.

Table 2: Summary of key themes of EU-India Clean Energy and Climate Partnership, 2020, source: https://www.eeas.europa.eu/sites/default/files/cecp_updated_1.pdf

<p>MODERNISATION</p> <ul style="list-style-type: none"> • Investment in India's sustainable modernisation • New business opportunities • Enhanced connectivity and data protection • Sustainable urbanisation 	<p>ENVIRONMENT, ENERGY & CLIMATE CHANGE</p> <ul style="list-style-type: none"> • Implementation of the Paris Agreement • Clean energy transition, energy efficiency and renewable energy • Addressing major environmental challenges + India-EU Water Partnership • Joint Declaration on Resource Efficiency
<p>TRADE & INVESTMENT</p> <ul style="list-style-type: none"> • Balanced, ambitious and mutually beneficial agreements on trade and investment • Sound, transparent, non-discriminatory regulatory and business environment in India 	<p>INNOVATION</p> <ul style="list-style-type: none"> • More people-to-people exchanges, utilising societal diversity • Cooperation on education and skills, mutual recognition of qualifications, mobility of talent • Innovation initiatives
<p>REINFORCING COOPERATION ON FOREIGN POLICY</p> <ul style="list-style-type: none"> • Coordinating on the most relevant foreign policy issues • Working for stability and security in the overlapping neighbourhoods • Engaging India more on sustainable connectivity both at strategic and operational levels 	<p>DEVELOPING SECURITY AND DEFENCE COOPERATION</p> <ul style="list-style-type: none"> • Fighting terrorism and radicalisation • Exchanging expertise on maritime and cyber security, non-proliferation / disarmament and hybrid threats • Military relations via personnel exchanges and training

PROMOTING EFFECTIVE MULTILATERALISM	BUILDING ON COMMON VALUES, OBJECTIVES
<ul style="list-style-type: none"> • Promoting the rules-based global order and trading system • Improving coordination in the United Nations, World Trade Organization and G20 • Working on strong, sustainable, balanced and inclusive global growth 	<ul style="list-style-type: none"> • Promoting gender equality and women’s empowerment, human rights and democracy, and the inclusion of young people • Coordinating on humanitarian and disaster relief operations • Delivering the UN Sustainable Development Goals and Agenda 2030

Clearly, there are areas where, under the impression of the unfolding climate crisis and the need to increase ambition, the strategic direction needs to advance, for example towards a full phase-out of fossil fuels in a Paris-compatible timeline and as a first step ending fossil fuel subsidies in a socially just manner and in a way which takes into account the very different economic and emission-wise conditions of today in the different regions. Similarly, trade agreements must not restrict or contradict climate policies but instead support the transformation to climate-neutral and climate-resilient economies. At this stage it is not certain whether this would be the case, or whether the trade agreement negotiations would replicate past failures of other trade agreements from a climate perspective.

Furthermore, the EU and India regard themselves as the largest democracies on this planet, as noted in the summary of the 9th EU-India Human Rights Dialogue which took place after some years of break in April 2021.⁶ For CAN, the upholding of human rights is central to climate justice, and human rights violations in general, but also in particular in the case of environmental defenders, protests against false climate solutions, are a great concern. The annual EU-India human rights dialogues, last held in July 2022, serve to reaffirm the parties’ commitments to human rights as well as the international cooperation in that regard.⁷ Thus, the cooperation on energy and climate issues must also be implemented in ways which ensure the protection of human rights.

Similarly The 2021 Joint EU-India’ Leaders’ Meeting statement “reaffirmed our commitment to protecting and promoting all human rights, including gender equality and women empowerment in all spheres of life, and the importance we attach to our cooperation.” But it did not draw any connections between the two. This must be addressed in subsequent cooperation through clear commitments and actions to progress gender equality in climate and energy cooperation.

IV. EU India climate and energy cooperation to date

India and the European Union (EU) have a strong history of cooperation on climate and energy issues, and their partnership can be vital in promoting global action on climate change. The EU and India share a common objective of reducing their dependency on energy imports, increasing energy efficiency, diversifying their energy supply, and increasing the share of renewable energy. The two regions are strongly committed to the

⁶ https://www.eeas.europa.eu/delegations/india/9th-eu-india-human-rights-dialogue_en
⁷ https://www.eeas.europa.eu/delegations/india/10th-eu-india-human-rights-dialogue_en

implementation of the Paris Agreement and are working closely on ensuring affordable, clean, and secure energy.

The cooperation between the EU and India focuses on promoting renewable energy, energy efficiency, and climate action to implement the Paris Agreement. **India's energy needs are set to more than double in the next 20 years**, and the country is currently the world's third-largest emitter of greenhouse gases. The country is also highly vulnerable to climate change and extreme weather conditions such as heatwaves, droughts, and floods. The EU-India cooperation can contribute to delivering reliable, sustainable, and affordable energy systems while bringing together energy technology sectors from both sides.

The EU is an important partner for India in addressing climate change and promoting clean energy. The EU is a global leader in climate action, with targets and legislation in place to reduce its greenhouse gas emissions and increase its use of renewable energy throughout the decade. By working with the EU, India can benefit from its experience and expertise in implementing climate policies and technologies. Additionally, the EU is a significant investor in renewable energy technologies, such as solar and wind power, which India can benefit from as it aims to achieve its target of 450 GW of renewable energy by 2030.

India is also an essential partner for the EU in terms of climate and energy action. India's actions are critical to achieving global climate goals. India has set ambitious climate goals, with a target of achieving 40 per cent of its installed power capacity from non-fossil fuel sources by 2030. The EU can collaborate with India to achieve these goals by sharing knowledge, technology, and financing. India has significant potential for renewable energy, such as solar, wind, and biomass, and the EU can help India to realise its renewable energy potential by providing technical assistance, investment, knowledge sharing and waiving patents on green technologies.

Beyond specific cooperation activities between the EU institutions and India, various Member States have established partially long-standing cooperation with India on clean energy and climate matters, which, for practical reasons, cannot be covered comprehensively within the limited scope of this paper.

Positively, the delegation of the EU to India hosts a comprehensive website on the partnership which hosts a lot of information on reports, specific events taking place, and the main underpinning policy documents.⁸ A dashboard website also provides an overview of specific programmes by the EU and its Member States, and its geographical locations in India.⁹

Strategic Milestones of EU-India Partnership on Climate and Energy

The EU-India Energy Partnership was established in 2005 to promote cooperation on energy security, energy efficiency, and renewable energy. The partnership has resulted in several joint initiatives and projects, including the establishment of the India-EU Clean Energy and Climate Partnership which aims to promote among other things “access to and

⁸ <https://www.cecp-eu.in/>

⁹ <https://cecpdashboard-eu.in/> The dashboard has not been updated since 2020 and therefore is not up to date at the time of writing this report.

dissemination of clean energy and climate friendly technologies” and to “encourage research and the development of innovative solutions”. The partnership also covers areas including renewable energy, transport as well as cooperation between cities in India and Europe.

EU-India Summit 2016¹⁰

At the EU-India Summit on March 30, 2016, the two sides announced the India-EU Clean Energy and Climate Partnership, aimed at strengthening joint activities for the deployment of climate-friendly energy sources such as solar and wind energy, and reinforcing cooperation on clean energy and the implementation of the Paris Agreement. The partnership included a range of concrete measures to promote clean energy, energy efficiency, and sustainable transport. Additionally, both sides agreed to continue the energy dialogue established under the India-EU Energy Panel, establish an India-EU climate change dialogue, and reinforce cooperation in energy and climate research and innovation. A joint declaration on a water partnership was also issued, followed by a memorandum of understanding signed in October 2016.

Joint Declaration on Clean Energy and Climate Partnership, 2016 Summit

.....to work towards the establishment of a Clean Energy and Climate Partnership (hereafter “The Partnership”), bringing together representatives of relevant stakeholders, including interested EU Member States, European and Indian institutions, businesses and civil society.

to exchange views on policy and regulatory approaches, governance, best practices, business solutions, market access and joint research and innovation opportunities in the field of clean energy, clean coal technologies, energy efficiency and climate change in India and in the EU, taking account of lessons learnt in the implementation of the EU's and India's climate and energy policies.

To continue and further strengthen the ongoing joint activities on energy efficiency in buildings, development and deployment of renewable energy sources, including solar energy and offshore wind energy, clean coal technologies, nuclear fusion and energy security, as well as the cooperation aiming at increasing access to modern energy.

to exchange experiences, views and positions on implementing the INDC's and related mitigation and adaptation initiatives, on implementing the transparency and accountability framework for climate action, on strategies for sustainable patterns of consumption and production to lessen adverse impacts of climate change, on responses to climate adaptation needs.

To develop EU-India cooperation on smart grids and to explore possibilities for the EU to work together with India to further the objectives of the International Solar Alliance, Mission Innovation.

To promote access to and dissemination of clean energy and climate friendly technologies and to exchange views and experiences on mobilising funding and encouraging partnerships for research and development of such technologies.

To explore possibilities to cooperate in the context of the Montreal Protocol on substances that deplete the ozone layer in view of the 2015 Dubai Pathway on hydrofluorocarbons (HFCs).

¹⁰ European Parliament, 2020, EU-India Cooperation on Climate : [https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659348/EPRS_BRI\(2020\)659348_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659348/EPRS_BRI(2020)659348_EN.pdf)

EU-India Summit 2017

At the October 2017 summit, the EU and India strengthened their partnership by signing a joint statement on clean energy and climate change. The statement aims to facilitate EU-India business-to-business interaction in implementing their commitments in the two areas and explore new fields of cooperation, such as green cooling, solar pumping, energy storage, and advanced biofuels. The leaders reiterated their commitments under the 2015 Paris Agreement and agreed to cooperate further to enhance its implementation. They acknowledged that addressing climate change and promoting secure, affordable, and sustainable energy are shared priorities.

In addition, the leaders welcomed the establishment of the South Asian Regional Representative Office of the European Investment Bank (EIB) in India and its investments in key sectors, particularly in the field of climate action and renewable energy. The new €500 million EIB loan agreement for Bangalore Metro Phase-II Project, which is part of EIB's commitment of €1.4 billion in loans to India in 2017, was also welcomed.

India and the EU reaffirmed their commitment to collaborate on reducing the cost of developing and deploying renewable energy projects through technology innovation, knowledge sharing, capacity building, trade and investment, and project establishment. Moreover, a joint action plan for 2019-2020 on urban development, seeking to enhance EU-India cooperation in smart and sustainable urbanisation, was presented at the summit. The joint declaration on a partnership for smart and sustainable urban development is the framework for EU support for India's urbanisation challenges.¹¹

EU-India Summit, 2020

The 15th EU-India Summit held in July 2020 focused heavily on climate change, with both sides reaffirming their commitment to the implementation of the Paris Agreement and to engaging constructively in its first global stocktaking in 2023. The EU also offered its long-term GHG development strategy as a reference for India when submitting its own forthcoming strategy on investing in clean energies to transform the economy into a carbon-neutral one. The two sides agreed to reinforce their cooperation in the International Solar Alliance (ISA) to promote the deployment of solar energy and in the International Platform on Sustainable Finance (IPSF) to mobilise private capital for making environmentally sustainable investments. They also agreed to work closely together to develop a post-2020 global framework to protect biodiversity, with a high-level dialogue supporting mutual understanding and a common approach on these issues. The leaders supported an ambitious mandate for an international chemical and waste management framework beyond 2020.

The EU and India also pledged to enhance their partnership in support of sustainable modernisation by boosting cooperation to support clean energy transition, resource efficiency and circular economy, and the necessary technological leaps, while opening new business opportunities. The leaders adopted the “EU-India Strategic Partnership: A Roadmap to 2025” to guide cooperation between the EU and India over the next five years. They also adopted a Joint Declaration on Resource Efficiency and Circular Economy and

¹¹ [ORF 2019. India-EU Cooperation in the SDG Era: Unlocking the Potential of a Development Partnership in Transition](#)

welcomed the upcoming renewal of the EU-India Science and Technology Agreement for another five years.^{12,13}

EU-India Climate Change and Energy Roadmap 2025

The EU-India Climate Change and Energy Roadmap 2025 includes several points of cooperation between the two entities to combat climate change and promote clean energy.

Overall, they aim to support the United Nations Framework Convention on Climate Change (UNFCCC) and its legal instruments, including the Paris Agreement, in a manner that is equitable and considers differentiated responsibilities. They plan to jointly address climate change and limit the increase in global average temperature to below 2°C above pre-industrial levels, pursuing efforts to limit it to 1.5°C above pre-industrial levels. In order to facilitate this,

The parties will hold regular meetings to implement the EU-India Clean Energy and Climate Partnership, which focuses on energy efficiency, renewable energy, and sustainable energy security. Regular meetings of the EU – India Energy Panel and regular dialogues between the European Commission and India's energy Ministries (Ministry of New and Renewable Energy (MNRE), Ministry of Power (MoP), Ministry of Petroleum and Natural Gas (MoPNG)) to steer the implementation of the work programme of the EU – India Clean Energy and Climate Partnership are envisaged.

The EU and India will work to increase cooperation and coordination in international organizations and to invest in climate change mitigation and adaptation infrastructure, notably in the energy sector, with the support of the European Investment Bank (EIB).

They will also encourage ratification and implementation of the Kigali Amendment to the Montreal Protocol and facilitate a smooth transition to environment-friendly alternatives in areas such as heating, refrigeration, and air conditioning systems.

On energy, the EU-India Clean Energy and Climate Partnership should focus on cooperation in energy efficiency and in renewable energy, including its integration in the energy system such as through smart grids.

Additional focus should be on safe and sustainable low greenhouse gas emission energy security, integration of electric vehicle charging infrastructure in the energy grid, energy research & innovation and support of a just energy transition and on mobilising finance and improving the market and investment environment with a view to enhancing sustainable energy access and resilience.

EU-India Summit, 2021

The EU-India Summit 2021 provided an opportunity for the two parties to strengthen their cooperation under the EU-India Clean Energy and Climate Partnership. They expressed their anticipation for the adoption of a new work programme for the Partnership by the EU-India Energy Panel and their commitment to deepening their cooperation to accelerate the deployment of renewable energy, promote energy efficiency, collaborate on smart grid & storage technology and modernise the electricity market. They plan to increase their cooperation to deploy innovative renewable technologies, such as offshore wind, as well as to exploit the potential of hydrogen - in particular from renewable sources - and of electricity interconnections, to enable the cost-effective integration of large shares of renewable

¹² European Parliament, 2020, EU-India Cooperation on Climate
[https://www.europarl.europa.eu/RegData/etudes/BRIEF/2020/659348/EPRS_BRI\(2020\)659348_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIEF/2020/659348/EPRS_BRI(2020)659348_EN.pdf)

¹³ MDPD, 2021, [EU Green Deal](#)

electricity. The parties also committed to working together to decarbonize the industrial sector, further accelerate the process of electrification of the transport sector, improve the efficiency of cooling and the cold chain sectors, promote awareness about climate change, and encourage sustainable finance and investment. They agreed to continue to share lessons on adaptation and resilience and recognized their shared commitment to ensuring that the transition towards a low carbon future is just and equitable within their societies, as well as sharing lessons in this respect.¹⁴

EU-India Energy Panel

High-level discussions on climate and energy related issues take place between officials from the Government of India and the EU institutions, inter alia, in the Energy Panel. Under the Energy Panel, four Joint Working Groups (JWG) have been established on:

- **Energy Security** (co-chairs: Ministry of External Affairs/Ministry of Petroleum and Natural Gas, Government of India and Directorate-General for Energy (DG ENER), European Commission);
- **Renewable Energy** (co-chairs: Ministry of New and Renewable Energy, Government of India and DG ENER, European Commission);
- **Energy Efficiency, Smart Grids and Electricity Markets** (co-chairs: Ministry of Power, Government of India and DG ENER, European Commission);
- **Clean Coal** (co-chairs: Ministry of Power and Ministry of Coal, Government of India and DG ENER, European Commission).

Progress on commitments: EU-India Initiatives on Climate & Energy

Cooperation in renewable energy, energy efficiency and climate action¹⁵

EU-India Technical Cooperation Project: Energy

The EU-India Technical Cooperation Project: Energy began in 2014 and ended in 2020. It aimed to promote sustainable and inclusive development in India by increasing the use of green energy, energy efficiency, and clean technologies. The project provided EU experts to support the MNRE, sharing local experiences and best practices to enhance technical and institutional capacity. The Rooftop Cell, established with the MNRE, promotes solar rooftop energy and awareness among public and private stakeholders. In January 2020, the project launched a mobile app for BSES Rajdhani Power Limited, providing information and connecting users with potential solar installers. This supports India's goal of 40,000 MW of solar rooftop installations by 2022.

EU-India Clean Energy and Climate Partnership (CECP)¹⁶

The EU-India Clean Energy and Climate Partnership (CECP) has been underpinned by specific projects, which began in December 2018, funded by the Partnership Instrument (PI)

¹⁴ EU, 2021, [Joint Statement: EU-India Leaders' Meeting](#)

¹⁵ EU, 2020, [EU – India Clean energy and Climate Partnership](#)

¹⁶ ORF 2019, [India-EU Cooperation in the SDG Era: Unlocking the Potential of a Development Partnership in](#)

of the European Union and managed by the Delegation of the European Union to India. PwC India, NIRAS A/S, EUROCHAMBRES, and CEEW are implementing partners for the project, which aims to strengthen cooperation between the EU and India on climate change and energy. The goal is to ensure a secure, clean, affordable, and reliable energy supply for all and progress in implementing the Paris Agreement. The project has aimed to enhance policy dialogue, cooperation, research, and innovation between India, the EU, EU Member States, and key stakeholders in areas such as energy efficiency, renewable energy, smart grid applications, energy storage, clean energy access, climate mitigation, sustainable consumption and production, financing, and accountability frameworks.

India-EU Strategic Partnership for Implementation of the Paris Agreement (SPIPA)

In 2017, the EU launched new strategic partnerships for implementing the Paris Agreement, including the SPIPA project. SPIPA is funded by the EU's Partnership Instrument and the German Federal Government's International Climate Initiative and involves G20 countries except EU members. In India, the Ministry of Environment, Forest and Climate Change is the partner ministry, with implementation support from the EU Delegation and GIZ. The project has a total budget of €20 million from the EU and €5 million from Germany, with €2 million allocated to India until December 2021. Its objective is to deepen cooperation with India on climate-related topics, complementing dialogue on clean energy and addressing cross-cutting aspects such as innovation and the water-energy nexus. Proposed activities include networking, capacity building, knowledge management, low carbon modeling, technical exchange on monitoring climate action, and sector activities related to adaptation and mitigation.

During the EU-India High-Level Dialogue on Climate Change held on April 28th, 2021, both parties expressed their commitment to enhance collaboration in various areas related to renewable energy, energy efficiency, smart grids and storage technologies, as well as the modernisation of the electricity market. Additionally, they discussed increasing the adoption of wind energy and fostering partnerships in green and blue hydrogen for the mobility sector. The EU's strategy for relations with India proposes specific actions aimed at strengthening energy and climate cooperation to tackle global challenges. This includes the launch of EU-funded initiatives that promote clean technology transfer and green energy partnerships between the two regions. The EU initiated the Business Support to the EU-India Policy Dialogues Project in January 2019, which aims to increase business involvement in strategic areas of cooperation between the EU and India, such as environment, energy, climate, ICT, and urbanization. This project facilitates opportunities for EU businesses to enter the Indian market.

The EU-India Aviation Cluster, part of the Policy Dialogues, serves as a collaborative platform for EU companies interested in strengthening bilateral relations and cooperation with India, particularly in green aviation, sustainability, infrastructure, and safety & operations.

Additionally, both the European Union and India engage in various Policy Dialogues and have commitments to projects promoting resource efficiency, water partnership, urban partnership, and international collaboration at different levels. These projects focus on sustainability, green technology, and innovative solutions, aligning with the goal of achieving net-zero emissions.

Given the evolving geopolitical landscape, the advancing strategic partnership between the EU and India holds great significance and has the potential to provide global leadership in climate and energy transition. India's focus on energy reforms and regulatory transformation aligns with Europe's abundant resources, best practices, and innovative technologies, making it a suitable partner to support India's leap into the future. Despite the existence of a viable ecosystem for EU companies to transfer technology and solutions to India, there is a lack of awareness and access to Indian opportunities within the EU. As of 2021, there are 4.500 EU businesses in India that have contributed to the creation of over 1.5 million direct and 5 million indirect jobs in the country.¹⁷

Cooperation in Solar energy

Technical assistance for implementation and management of solar parks¹⁸

This is a project funded by the European Union under the Clean Energy Cooperation with India initiative. It started in February 2016 and ended in December 2019, with a budget of €1.66 million. The project was implemented by a consortium led by IBF (Belgium) and supported by OCA-NIXUS (Spain) and IDOM (Spain). The beneficiaries were the Ministry of New and Renewable Energy (MNRE), the Solar Energy Corporation of India (SECI), and local solar power park developers in several states in India. The project aimed to assist solar parks in India and provided a range of services such as developing detailed project reports, grid studies, revising and drafting new renewable energy and solar policies, and designing and implementing an online monitoring tool for solar parks. It also supported the MNRE's Solar Power Park Developers joint working group and organized national meetings. Additionally, the project facilitated study tours to Europe to showcase best practices in hybrid cleaning for PV plants, storage applications in national grids, tracking for PV plants, floating solar PV solutions and grid integration of large capacities of intermittent renewable energy sources with a focus on solar. The project interacted with 16 Indian states.

PV Rooftop Solar

The EU-India Technical Cooperation Project, funded by the EU with €2.02 million from September 2014 to September 2020, implemented a solar PV rooftop cell within the Ministry of New and Renewable Energy (MNRE) to support rooftop solar deployment in India. The cell started operating in July 2016 and helped the MNRE promote and implement the Grid Connected and Small Power Plant Programme. The PV Rooftop Cell supported the MNRE and National Informatics Centre to modify the Solar Photovoltaic Installation Portal, a national database of solar rooftop installations in India. It also developed an information guide on the Grid Connected Rooftop Programme to provide information about rooftop solar business models, stakeholders, promotional schemes, policies and new initiatives in one place to raise awareness among the general public.

Cooperation with ISA

The International Solar Alliance (ISA) is an international organization launched jointly by India and France at COP21, with the aim to facilitate cooperation among solar resource-rich countries, mobilise over \$1.000 billion of investments, promote solar technologies and encourage innovative applications. The ISA also works towards capacity building,

¹⁷ Europe India Business Council, [EU-India Special Report on Climate Action](#)

¹⁸ ICWA, 2019, [Climate Change Cooperation between India and the European Union: A Review](#)

formulating projects, developing innovative financial mechanisms, and building a common knowledge e-portal. In 2018, a Joint Declaration was signed between the European Union and the ISA to deepen cooperation. Since then, ISA and EU have taken various initiatives together. Sometimes including:

- ISA, EU and France present two new projects in August 2022 to ISA on Capacity Building giving a push to solar energy adoption by Knowledge sharing, building business, academic and financing networks & structuring STAR C in ISA Member Countries¹⁹
- In May 2022, ISA and BSW Solar inked a Memorandum of Cooperation to collaborate in areas of mutual interest, mainly promoting RE technologies in ISA Member Countries during Intersolar Europe, the world's leading exhibition for the solar industry. The broad avenues for collaboration discussed included exchanging information and best practices, ensuring quality assurance of circulated solar products; steps to advance capacity building; building awareness for solar energy; furthering the deployment of innovative technologies like solar + storage, solar hydrogen and solar EV charging and renewable energy advocacy enabling policy, regulations, rules and incentives.

Cooperation in Wind energy

The EU and India have collaborated on offshore wind energy through two EU-funded projects: Facilitating Offshore Wind in India (FOWIND) and First Offshore Wind Project of India (FOWPI). FOWIND identified potential development zones for offshore wind in Gujarat and Tamil Nadu through technical and commercial analysis and resource assessments, while FOWPI provided technical assistance for the implementation of India's first offshore wind farm project. FOWPI also supported capacity building, technical dialogue, and advisory services, and facilitated an offshore measurement campaign, geophysical works, and environmental screening. Both projects helped the Ministry of New and Renewable Energy achieve its targets of 5 GW of offshore wind energy by 2022 and 30 GW by 2030. FOWPI's Expression of Interest document has generated interest from EU and Indian industry. According to information obtained in consultations, as part of efforts on the EU side to step up support for offshore wind energy, a first draft tender has gone out to add 5 GW of offshore wind in the next few years.

Cooperation in Energy Efficiency²⁰

ACE: E2 – Adoption, Compliance, Enforcement for Energy Efficiency in Buildings

The project aimed to support the implementation of the Energy Conservation Building Code (ECBC) in commercial buildings and increase efficiency in upcoming new buildings in four Indian states: Bihar, Maharashtra, Madhya Pradesh, and Odisha. It targeted local involvement and commitment of designated agencies, urban bodies, and distribution companies. The revised version of the code was launched in March 2017 and is expected to significantly reduce energy demand in commercial buildings. The project trained 3,200 professionals and demonstrated ECBC compliance for approximately 0.364 million sqft of building area. It improved stakeholder engagement and created a common implementation

¹⁹ <https://isolaralliance.org/uploads/docs/5740488a54ea390ff4529b9cd55d09.pdf>

²⁰ EU, 2020, [EU – India Clean energy and Climate Partnership](#)

forum for energy efficiency across all states. The project received €1.3 million in funding and was implemented by EXERGIA S.A., in collaboration with PwC India, under the Clean Energy Cooperation with India (CECI) program.

EU-India Cooperation on Clean Energy and Energy Efficiency in Eco-Cities

India's rapid urbanization has created a demand for infrastructure and municipal services that has led to a gap in reliable energy and water supplies, increased traffic congestion and air pollution, open dumping, and a lack of affordable housing. The Eco-Cities Programme is addressing these needs by developing climate-smart interventions in targeted urban sectors, facilitating private-sector financing via public-private partnerships and direct investments, and building capacity among government officials. The program is primarily focused on five cities - Bhubaneswar, Bengaluru, Chennai, and the Mumbai and Pune metropolitan regions - but the broader urban solutions being developed are scalable and are being replicated across the country. By the end of 2020, it was estimated that the program facilitated over \$600 million in private-sector financing and avoided about 850.000 tonnes of greenhouse gas emissions annually, while improving access to services for over two million people.

Integration of RE with Grids and SMART Grids

EU-India Smart Grid workshops have been held since 2015, focusing on themes such as European and Indian demonstration projects on energy storage, the role of distribution system operators, and regulatory frameworks. These workshops involve Indian and European policymakers, network operators, regulators, and technology providers, and joint smart grid demonstration projects are co-financed through the Horizon 2020 program. The first EU-India Electricity Market Design and Regulation workshop was held in Florence in November 2018, and a second workshop on Power Market Design was held in Delhi in March 2019.

Financing – European Investment Bank

The European Investment Bank (EIB), the bank of the European Union, supports clean energy, sustainable development, and climate-related projects within and outside the EU, including in India. It funds its operations mainly from international capital markets and collaborates with the private sector by sharing risk and co-financing climate action and SDG projects across South Asia. The EIB's Global Energy Efficiency and Renewable Energy Fund (GEEREF) invests in climate projects, such as hydroelectric projects in the Philippines, solar power in India, and geothermal plants in Ethiopia.²¹

With €112 million from Norway, Germany, the EU, and EIB's funds, GEEREF assigns first losses to public money and preferential returns to private money, encouraging private investment. The EIB has supported long-term investment in India for over 25 years and opened its Regional Representation for South Asia in New Delhi in 2017. The EIB has approved €3.4 billion for India, mobilizing around €10.2 billion for infrastructure, energy, and climate change projects.

Recently, the EIB agreed to provide €500 million for the Bengaluru metro project and €450 million for a new metro line in Lucknow. In 2020, it announced a €600 million investment in the Pune metro and a €200 million loan to Yes Bank for investments in solar power. The EIB has invested approximately €640 million in Indian solar, which supports the construction of

²¹ IPCS, 2021, [Better Together: EU India Cooperation on addressing Climate risk](#)

1.6 GW of renewable energy and provides over 4 million households with clean energy. The EIB has signed an MoU with the International Solar Alliance to provide low-cost, blended financing and technical expertise to solar projects in common engagement countries. The EIB is exploring offshore wind investment options in India and collaborating with local and international stakeholders to develop the sector.

In 2019, the European Investment Bank (EIB) announced that it would stop financing fossil fuel projects by the end of 2021. The EIB's new energy lending policy aligns with India's goal of increasing renewable energy capacity to 175 GW by 2022.

In early 2020, the European Investment Bank (EIB) signed an agreement to provide EUR 800 million for supporting clean energy projects in India. EIB provided EUR 650 million into developing Kanpur's metro rail project. The EIB had already invested EUR 450 million for developing the metro rail system in Lucknow a few years previously. (MDPD, 2020)

EU India Connectivity Partnership

The EU-India Connectivity Partnership, signed during the Leaders' Meeting in Porto in 2021, paved the way to advance the strategic partnership earlier outlined in the EU-India Roadmap to 2025. Mobilising sustainable finance, also through improving the investment climate, was one of its key focuses.

Energy is one of the four key pillars (alongside transport, people-to-people, and digital connectivity) of the EU-India Connectivity Partnership and stipulates the further enhancement of the sustainable modernisation partnership, including clean energy, transport and climate. Among others, this means fostering the implementation of the Clean Energy and Climate Partnership (CECP), which have been pursued jointly by the EU and India since 2016.²²

Research, Knowledge Development, Dialogues

Joint Research Centre: The EU's Joint Research Centre (JRC) has collaborated with Indian research institutions on a range of energy and climate-related projects. For example, the JRC has worked with the Indian Space Research Organisation to develop satellite-based systems for monitoring air quality and greenhouse gas emissions.

Mission Innovation: In 2015, India joined Mission Innovation, a global initiative that aims to accelerate clean energy innovation. The EU is also a member of the initiative, and together they are working to increase investment in clean energy research and development

Carbon Border Adjustment Mechanism

The EU decided to implement an instrument to address the risk of carbon leakage and finalised the intense and controversial legislative process involving the European Commission, the European Parliament and the Member States in May 2023. The EU considers the CBAM to be its "landmark tool to put a fair price on the carbon emitted during the production of carbon intensive goods that are entering the EU, and to encourage cleaner industrial production in non-EU countries."²³ The CBAM itself will enter into application in its transitional phase on 1 October 2023, with the first reporting period for importers ending 31 January 2024.

²² Europe India Business Council, [EU-India Special Report on Climate Action](#)

²³ https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

The implications of the CBAM on India are a live subject of discussion, as a briefing from mid-may 2023 for example demonstrates.²⁴ The CBAM has been criticised as a trade-restrictive policy, especially by developing countries like India, which has set a target of becoming carbon neutral by 2070. India has expressed concerns about CBAM at various international forums, including the World Trade Organization (WTO), emphasising the importance of non-discriminatory treatment for the same products and warning that such measures could lead to protectionist practices. Some research suggests that “India’s manufacturing industry is expected to be significantly affected by the EU’s new carbon border tax, especially companies that export products to the EU”, but also that steps of the Indian government for the expansion of renewables and more efficient energy use are steps which already help to increase the competitiveness from this perspective.²⁵ While this briefing is not the space to discuss the CBAM in much detail, it is obvious that the EU also has to make sure it listens to, and engages with, India on the implications and how to avoid the CBAM derailing instead of incentivising stronger cooperation.

²⁴

<https://www.india-briefing.com/news/eu-carbon-border-adjustment-mechanism-impact-india-business-exports-27901.html/>

²⁵

<https://www.india-briefing.com/news/eu-carbon-border-adjustment-mechanism-impact-india-business-exports-27901.html/>

V. Review of Progress

Even in the absence of a clear date for a Leader's summit between the EU and India, recently dialogue opportunities continue to emerge, after a probably largely COVID-19 related hiatus of in person meetings. According to media reports, EU and Indian officials met for the 4th Strategic Partnership Review Meeting which took place on 8 May 2023 in Delhi. According to the joint press release, the discussions "centred on a variety of subjects, including climate change, clean energy, biodiversity, the circular economy, resource efficiency, smart urbanisation, trade, research and innovation, education, mobility, and digital challenges, including data privacy."²⁶ However, no formal outcomes have yet been made available publicly.

On 16 May, European Commission officials and senior Indian ministers met for their first-ever trade and technology summit as part of the EU-India Trade and Technology Council. The latter was initiated through a high-level meeting between European Commission President Ursula von der Leyen and the Indian Prime Minister Narendra Modi in April 2022. The agenda for the trade summit included climate-relevant, but also controversial issues such as the Carbon Border Adjustment Mechanism developed by the EU, sustainability requirements in the context of negotiations on a free trade agreement which were relaunched in June 2022.²⁷ The council includes a specific working group on Green & clean energy technologies, to focus on relevant aspects of three areas: (1) Renewable and Low Carbon Hydrogen; (2) Batteries for Electrical Vehicles and (3) Standards. The joint statement released after the summit highlights that among others both partners intend to "share knowledge on circularity aspects of batteries and recover raw materials; and develop standards that can ensure interoperability, including for Renewable and Low Carbon Hydrogen".²⁸

In the week 24 May 2023, European Commission Executive Vice-President Frans Timmermans visited India (and Maldives) for consultations and exchange on various climate, energy and environment issues.²⁹ This visit was said to also tackle the controversial issue of the Carbon Border Adjustment Mechanism (CBAM).³⁰ Formal outcomes have not been communicated, but obviously this high-level engagement is essential for a functioning partnership.

On a sectoral level recent activities include:

²⁶

https://www.eeas.europa.eu/eeas/eu-india-joint-press-release-fourth-strategic-partnership-review-meeting-new-delhi_en

²⁷

https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/india/eu-india-agreement_en

²⁸ <https://digital-strategy.ec.europa.eu/en/library/eu-india-ttc-joint-statement>

²⁹

https://www.eeas.europa.eu/delegations/india/executive-vice-president-timmermans-india-and-maldives-cop28-preparations_en?s=167

³⁰

<https://www.reuters.com/world/india/european-union-will-tackle-indias-concerns-carbon-tax-official-says-2023-05-2618>

- An EU India Aviation summit in April 2023 in the context of the connectivity partnership of both blocks; while “green” aviation aspects were also on the agenda, the joint press release did not pay any attention to those;³¹
- As part of the EU Climate Diplomacy Weeks³² which was inaugurated by the European Commissioner on Energy, the 1st EU India Green Hydrogen Forum in September 2022 and an event on “Solar Energy - Diversification of the global supply chain and EU-India cooperation in the area of manufacturing”
- the kickoff meeting of the Stakeholder Group on Advanced Biofuel (SGAB) workshop (8th Feb 2023) as a follow-up to annual joint conferences under the Clean Energy and Climate Partnership held between 2018-2022
- the 4th Youth Climate Conclave in February 2023

Also, work under the partnership has led to numerous technical publications and guidelines, such as on market integration of renewable energies, disaster impacts on investments etc.³³

³¹ https://www.eeas.europa.eu/delegations/india/aviation-eu-and-india-deepen-ties-aviation-summit_en?s=167

³² <https://www.cecp-eu.in/events/post/eu-climate-diplomacy-weeks-2022>

³³ <https://www.cecp-eu.in/resource-center/reports>

Table 3: Summary of key commitments and traffic light rating of progress in: Joint Declaration on Clean Energy and Climate Partnership, 2016, and EU India Climate Change and Energy Roadmap 2025

Commitments	Progress	Rationale
Joint Declaration on Clean Energy and Climate Partnership, 2016 Summit		
<p>To exchange views on policy and regulatory approaches, governance, best practices, business solutions, market access and joint research and innovation opportunities in the field of clean energy, clean coal technologies, energy efficiency and climate change in India and the EU.</p>		<p>EU and India have partnerships in the field of clean energy and clean coal technologies and energy efficiency. The two key ones include EU-India Technical Cooperation Project: Energy (It provides EU experts to support the MNRE, sharing local experiences and best practices to enhance technical and institutional capacity) and EU-India Clean Energy and Climate Partnership (CECP) (It aimed at policy dialogue, cooperation, research, and innovation between India, the EU, EU Member States, and key stakeholders in areas such as energy efficiency, renewable energy, smart grid applications, energy storage, clean energy access, climate mitigation, sustainable consumption and production, financing, and accountability frameworks.)³⁴</p>
<p>To continue and further strengthen the ongoing joint activities on energy efficiency in buildings, development and deployment of renewable energy sources, including solar energy and offshore wind energy, clean coal technologies, nuclear fusion and energy security.</p>		<p>There are explicit partnerships and joint activities on the themes mentioned including - Technical assistance for implementation and management of solar parks: (Feb 2016 - Dec 2019, budget €1.66 million); PV Rooftop Solar (The EU-India Technical Cooperation Project, funded by the EU with €2.02 million, Sept 2014 - Sept 2020, implemented a solar PV rooftop cell within the Ministry of New and Renewable Energy (MNRE) to support rooftop solar deployment in India.); Wind energy projects: (offshore wind energy through two EU-funded projects: Facilitating Offshore Wind in India (FOWIND) and First Offshore Wind Project of India (FOWPI).); ACE: E2 – Adoption, Compliance, Enforcement for Energy Efficiency in Buildings (The project aimed to support the implementation of the Energy Conservation Building Code (ECBC) in commercial buildings and increase efficiency in upcoming new buildings in four Indian states: Bihar, Maharashtra, Madhya Pradesh, and Odisha); EU-India Cooperation on Clean Energy and Energy Efficiency in Eco-Cities: The Eco-Cities Programme is addressing these needs by developing climate-smart interventions in targeted urban sectors, facilitating private-sector financing via public-private partnerships and direct investments, and building capacity among government officials. EU-India made an agreement that seeks to facilitate research and development cooperation in the peaceful and non-explosive uses of nuclear energy to benefit both the European Atomic Energy Community (Euratom) and India.</p>
<p>To exchange experiences, views and positions on implementing the INDC's and related mitigation and adaptation</p>		<p>India-EU Strategic Partnership for Implementation of the Paris Agreement (SPIPA) aims to foster exchanges and collaboration among national and sub-national administrations, business communities, academia and civil society stakeholders in progressing toward the Paris Agreement goals.</p>

³⁴ EU, 2020, [EU-India Strategic Partnership – A roadmap for 2025](#)

<p>initiatives, on implementing the transparency and accountability framework for climate action, on strategies for sustainable patterns of consumption and production to lessen adverse impacts of climate change, on responses to climate adaptation needs.</p>		
<p>To develop EU-India cooperation on smart grids and to explore possibilities for the EU to work together with India to further the objectives of the International Solar Alliance, Mission Innovation.</p>		<p>In 2018, a Joint Declaration was signed between the European Union and the ISA to deepen cooperation, which was initially set up by France and India.</p>
<p>To promote access to and dissemination of clean energy and climate friendly technologies and to exchange views and experiences on mobilising funding and encouraging partnerships for research and development of such technologies.</p>		<p>Various initiatives above have transfer or exchange of technologies and views, however there haven't been specific technology research and development based partnerships.</p>
<p>To explore possibilities to cooperate in the context of the Montreal Protocol on substances that deplete the ozone layer in view of the 2015 Dubai Pathway on hydrofluorocarbons (HFCs)</p>		<p>No explicit India-EU partnership</p>
<p>EU-India Climate Change and Energy Roadmap 2025</p>		
<p>The EU and India will work to increase cooperation and coordination in international organisations and to invest in climate change mitigation and adaptation infrastructure, notably in the energy sector,</p>		<p>The EIB has supported long-term investment in India for over 25 years and opened its Regional Representation for South Asia in New Delhi in 2017. The EIB has approved €3.4 billion for India, mobilizing around €10.2 billion for infrastructure, energy, and climate change projects. Recently, the EIB agreed to provide €500 million for the Bengaluru metro project and €450 million for a new metro line in Lucknow. In 2020, it announced a €600 million investment in the Pune metro and a €200 million loan to Yes Bank for investments in solar power. The EIB has invested approximately €640 million in Indian</p>

<p>with the support of the European Investment Bank (EIB).</p>		<p>solar, which supports the construction of 1.6 GW of renewable energy and provides over 4 million households with clean energy. While EIB has extended support and invested in India, there is limited study on EIBs engagement to mobilise international funds to India's energy sector.</p>
<p>They will also encourage ratification and implementation of the Kigali Amendment to the Montreal Protocol and facilitate a smooth transition to environment-friendly alternatives in areas such as heating, refrigeration, and air conditioning systems</p>		<p>The Republic of India has ratified the Kigali Amendment to the Montreal Protocol, becoming the 125th country, plus the European Union (EU), to ratify the global agreement to reduce HFC emissions. There have not been explicit partnerships or programmes that have been developed so far between the EU and India.</p>
<p>On energy, the EU–India Clean Energy and Climate Partnership should focus on cooperation in energy efficiency and in renewable energy, including its integration in the energy system such as through smart grids.</p>		<p>There are explicit partnerships and joint activities on the themes mentioned including - Technical assistance for implementation and management of solar parks: (It started in February 2016 and ended in December 2019, with a budget of €1.66 million); PV Rooftop Solar (The EU-India Technical Cooperation Project, funded by the EU with €2.02 million from September 2014 to September 2020, implemented a solar PV rooftop cell within the Ministry of New and Renewable Energy (MNRE) to support rooftop solar deployment in India.); Wind energy projects: (The EU and India have collaborated on offshore wind energy through two EU-funded projects: Facilitating Offshore Wind in India (FOWIND) and First Offshore Wind Project of India (FOWPI).</p>
<p>Additional focus should be on safe and sustainable low greenhouse gas emission energy security, integration of electric vehicle charging infrastructure in the energy grid, energy research & innovation and support of a just energy transition and on mobilising finance and improving the market and investment environment with a view to enhancing sustainable energy access and resilience.</p>		<p>The first EU-India Electricity Market Design and Regulation workshop was held in Florence in November 2018, and a second workshop on Power Market Design was held in Delhi in March 2019. There are limited instances of Mission Innovation partnerships. While there have been early workshops and events, the aspect of just energy transition, energy access and resilience is only limited.</p>

VI. Recommendations

Enhancing cooperation between the EU and India on climate and energy will require a coordinated effort across multiple sectors and stakeholders. By building on the commitments made in the EU-India summit and prioritizing key areas for collaboration, the two regions can work together to accelerate the transition to a sustainable, low-carbon and climate-resilient future and moving towards phasing out fossil fuels, at varying speeds, with varying responsibilities, but both guided by the 1.5°C goal. Some key thematic recommendations include:

1. **Increase Renewable Energy Cooperation:** Both the EU and India have committed to reaching their renewable energy targets, and there is much to be gained from increasing cooperation in this area. Encouraging joint research and development, sharing best practices, and implementing capacity-building programs could all help accelerate the deployment of renewable energy technologies in both regions. This could also include a regional perspective in terms of interconnections of India with other countries, as the interconnections between grids of different countries in light of larger renewable energy expansion are also critical to the European Green Deal, potentially offering areas of mutual learning. Additionally, creating a dedicated platform for EU-India renewable energy cooperation could facilitate the exchange of knowledge and expertise between stakeholders.
2. **Address Energy Access:** India has a large population without access to reliable energy services, while the EU is working to reduce energy poverty and ensure access to affordable, sustainable, and modern energy for all. Therefore, cooperation on energy access could be an important area for collaboration between the two regions. This could include supporting the deployment of decentralised renewable energy solutions, such as mini-grids, as well as improving energy efficiency in households and businesses.
3. **Promote Green Finance:** The EU has committed to mobilising private and public investment to achieve its climate and energy targets, while India has set ambitious goals for mobilising climate finance. By promoting green finance and sustainable investment, both regions can accelerate the transition to a low-carbon economy. This could include supporting green bonds and other sustainable finance instruments, promoting carbon pricing and other market-based mechanisms, and developing green investment criteria and standards.
4. **Improve Energy Efficiency:** Both the EU and India have committed to improving energy efficiency as a means of reducing greenhouse gas emissions and promoting sustainable energy use. Cooperation in this area could include sharing best practices on energy-efficient building design, appliance standards, and industrial processes. In addition, joint research and development efforts could lead to the development of new energy-efficient technologies and solutions.
5. **Develop Smart Grids and Energy Storage:** The EU and India both recognise the importance of developing smart grids and energy storage solutions as a means of integrating renewable energy into the grid and ensuring a stable energy supply. Cooperation in this area could include joint research and development efforts, sharing best practices on smart grid and energy storage technologies, and promoting investment in these technologies.

6. **Promote Circular Economy:** The EU has set ambitious targets for transitioning to a circular economy, while India is also taking steps to reduce waste and promote sustainable consumption and production. Cooperation in this area could include sharing best practices on waste management and recycling, promoting the use of recycled materials, and developing circular business models.
7. **Learn from lifestyles and behavioural change:** The promotion of sustainable consumption with regard to more efficient resource use and needs to reduce resource and material consumption in particular at the levels of EU's consumption, is another critical area. The initiative "LiFE Movement' for Adoption of Environment-Conscious Lifestyle" launched by India's Prime Minister at COP26³⁵ seems an interesting entry point also for the EU to engage more in this direction.
8. **Explore effective cooperation in green hydrogen:** Procuring green hydrogen has recently received significant attention by the EU. Consultations reflected the situation that from an Indian perspective, a prospect for trading hydrogen with other countries makes it easier to also invest domestically in R&D and use of hydrogen. However, given aspects of efficiency and the high energy intensity of green hydrogen production, it would be important to explore the most effective and most needed areas for hydrogen use and focus cooperation on those areas, and ensure only hydrogen produced from renewable energy sources is subject to the discussion in order to avoid further fossil fuel lock-ins.
9. **Support Just Transition:** Both the EU and India recognise the importance of ensuring a just transition to a low-carbon economy, which takes into account social, economic, and environmental considerations. Cooperation in this area could include supporting workers and communities affected by the transition, promoting social dialogue and stakeholder engagement, and ensuring that the benefits of the transition are shared fairly across society. Latest information indicates that India does not seem to be willing to formally enter into a large Just Energy Transition Partnership (JETP) following some outreach by various developed countries (but reportedly too little really engagement), however, this should not prevent the EU within the useful framework of a long-standing partnership to continue the dialogue and cooperate in support of a just transition in India. It could be explored where mutual learning on just transition approaches (for example on coal mine phase-out experience) could deliver benefits in the transition to net zero.
10. **Advance cooperation on climate impacts:** In light of the 2021 leaders' statements on water and food security, and also the intent to "develop cooperation on the Coalition for Disaster Resilient Infrastructure" addressing climate impacts through adaptation seems to be an area still largely under-explored.
11. **Collaboratively address impacts of CBAM:** the new CBAM has emerged as a policy tool already causing tension with India and other countries. With the implementation of CBAM starting soon, and with India being a key partner in the climate and energy space, it will be critical that in particular the European side approaches Indian concerns proactively.
12. **Ensure that gender justice is pursued as a stand-alone objective and mainstreamed** across the thematic priorities above in all policy strategies, and dialogues including local-level political dialogues and human rights dialogues.

In addition the following functional recommendations for enhancing cooperation between the EU and India on climate and energy include:

³⁵ <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1831364>

- 1. Increase dialogues and strengthen civil society engagement:** Encourage regular high-level dialogues and consultations between the EU and India on climate and energy issues to build trust and increase cooperation through partnerships between businesses, governments, civil society, women's rights organisations and multilateral organisations in both regions to foster innovation and collaboration, knowledge sharing, and capacity building in order to facilitate the transfer of technology, expertise, and best practices. Both sides should explore individual and joint ways (e.g., in relation to specific EU-India summits) for regular civil society engagement. These could be specific dialogues, for example, during the annual EU climate diplomacy weeks (in India) and respective opportunities in Europe. Specific opportunities and support to engage youth, women in all their diversity, and children and marginalised groups should be explored to raise public awareness about the urgent need for action on climate change and the benefits of a low-carbon future through targeted communication and awareness-raising campaigns.
- 2. Strengthen regulatory cooperation:** The EU and India should strengthen regulatory cooperation on climate and energy to address policy gaps and regulatory challenges in both regions and create an enabling environment for private sector investment in low-carbon and renewable energy solutions. This could involve sharing best practices on renewable energy policies, carbon pricing mechanisms, and other areas that can help transition to phasing out fossil fuels, as well as coordinating international climate negotiations and exchanging experiences when developing national inputs to the UNFCCC process, such as the next round of Nationally Determined Contributions.
- 3. Foster investment and increase financial support:** Foster investment in low-carbon and climate-resilient infrastructure and technologies, in order to transition to a more sustainable energy system. This should be complemented, and partially catalysed, by increased public finance support by the EU and its Member States in critical areas, in order to be a stronger partner.
- 4. Promote research and development & support knowledge sharing:** Encourage knowledge sharing and capacity building programs between the EU and India, in order to facilitate the transfer of technology, expertise, and best practices. The EU and India should promote research and development in clean energy technologies, such as solar and wind power, hydrogen fuel cells, and energy storage systems. This could include joint research projects and funding for innovation hubs.

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