



## India's Climate Policy: From Lagging Behind to Leading the Way

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Mounting a globally effective fight against climate change requires the participation of India, the fourth largest CO<sub>2</sub> emitter in the world. Its position in climate negotiations has evolved from a state blocking ambitious solutions to a leader in combating climate change. More ambitious climate action, including a zero-net emissions target, requires international support and better access to capital and technology for the green and just transition. This is set to be a key area of the EU-India partnership. Poland can enhance cooperation in this field and join the Indian-led International Solar Alliance.

Carbon dioxide emissions in India jumped by 335% between 1990 and 2019 to 2,309.1 million tonnes, accounting for 7% of global emissions in 2019. That ranked India fourth after China (28%), the U.S. (14.5%), and the EU (7.5%). The Indian economy is driven mainly by energy from coal, which accounts for 44% of its total primary energy demand and 56% of its electricity production. In emissions per capita, however, India generates 1.7 tonnes (t) of CO<sub>2</sub>, which is less than the world's average (4.4 t) and much less than the USA (14.5 t), China (6.8 t) or the EU (6.1 t). Yet, rapid economic growth, urbanisation, and industrialisation means that CO<sub>2</sub> emissions will continue to grow dynamically. According to the International Energy Agency (IEA), just to meet growth in electricity demand over the next 20 years, India will need to add a power system the size of the European Union's. As a result, CO<sub>2</sub> emissions will increase by 50% by 2040, and India's share of global emissions will rise to about 10%.

**Evolution of Climate Policy.** India's traditional stance on climate policy was defined by Prime Minister Indira Gandhi, who observed at the first UN conference on the Human Environment in Stockholm in 1972 that "poverty is the greatest polluter". That meant that the government's priority was to fight poverty, and counteracting climate change could not be at the expense of limiting the economic growth of developing countries. The Indian approach referred to the principles of justness (responsibility for combating climate change should rest

with the main emitters of CO<sub>2</sub>, i.e., industrialised countries), equality (the basis for calculating environmental impact should be emissions per capita, not the economy as a whole), and capabilities (based on material resources owned). India was strongly against accepting legally binding commitments to reduce CO<sub>2</sub> emissions or other climate goals, which led, among others, to the failure of the Copenhagen Summit in 2009.

The turning point in the state's policy was the signing of the Paris Agreement in 2015. India has declared three nationally determined contributions (NDCs) by 2030: 1) reduction of emission intensity by 33-35% compared to 2005; 2) increasing the share of renewable sources in electricity generation to 40%; and, 3) increasing carbon dioxide absorption by an additional 2-2.5 billion tonnes through afforestation. The Indian NDCs are judged to be compatible with the Paris Agreement's goal of limiting global warming to below 2°C, but too conservative in the context of the lower 1.5°C target. Prime Minister Narendra Modi, who took power in 2014, strongly supported the Paris Agreement and pointed to climate change as a primary global threat, next to terrorism and protectionism. In 2015, India launched the International Solar Alliance (ISA), an organisation supporting the development of renewable energy in developing countries. In turn, in 2019, it started the Coalition for Disaster Resilient Infrastructure (CDRI), a multilateral initiative supporting also adaptation to climate change.

Modi's government has launched several national programmes to better protect the environment: Clean India, Clean Ganges, Smart Cities. India intensified its actions within the framework of the National Action Plan on Climate Change, adopted in 2008. It raised, among others, the objective of increasing electricity production capacity from renewables from 100 GW to 175 GW by 2022 and 450 GW by 2030. Renewables are to counterbalance the negative impact of the continued reliance on coal-fired energy (it plans to increase the latter capacity by 90 GW from the current 205 GW by 2030). Prime Minister Modi also persuaded citizens to support the more active climate policy, referring to religious arguments such as respect for Mother Nature as rooted in Hinduism.

As a result, India is on track today to meet, or even significantly exceed, its climate goals. Already in 2020, the share of renewables in the energy mix has reached 38.5%, and may climb to 60% by 2030. Under the current policies, the emission intensity is expected to decrease by more than 40% by 2030. It is uncertain if the third target will be achieved, which would require doubling the country's forested area. The [economic crisis in 2020 caused by the COVID-19 pandemic](#) also contributed to a drop in energy demand and moving closer to the NDCs.

**Climate Challenges as Sources of Change.** The shift in India's climate policy is permanent and due to three main reasons. First, the increasingly severe impact of climate change and environmental degradation on society and the economy means that the current development model is no longer sustainable. A serious problem already is the shortage of groundwater, irregular monsoons, more and more frequent floods, and air pollution. In 2020, as many as 15 of the 20 most polluted cities in the world were in India. Some studies indicate that in 2019 alone, 1.7 million people died in India due to poor air quality and the economy lost 1.4% of GDP.

Second, the rising capabilities has led the government to perceive climate policy not as a threat to economic development, but as an opportunity for growth. India has one of the best conditions in the world for the development of renewable energy, and the decline in the costs of renewable energy makes it more competitive than traditional sources. The IEA estimates that \$40 billion will be invested in the Indian renewable sector each year, and the share of solar energy alone in electricity production in 2040 will be equal to the contribution of coal-fired power plants (about 30%). The authorities want to transform India into a global hub for green technologies. This has become even more important in the context of the post-pandemic

recovery and the desire to attract some global production chains away from China.

Third, the new climate policy aims to promote India as a responsible world power and supplier of global public goods. India wants to be seen as a source of solutions, not problems, and thus increase its influence on the creation of international standards in the field of climate. The green transformation also has a strategic dimension. Reducing dependence on imported energy resources (today it accounts for 40% of energy consumption) will increase India's resilience and energy security, and will also improve its current account balance.

**India on the Verge of a New "Green Revolution".** India will meet its 2030 climate goals but also continue to increase CO<sub>2</sub> emissions. The change of administration in the U.S., the plans for the [European Green Deal](#), and the announcement by China of its climate neutrality target by 2060 mean that there is growing pressure on India to adopt a decarbonisation and zero emissions target at COP26 in Glasgow in November this year. Adoption of a more ambitious NDC is likely, but its scale will depend on increased access to foreign capital and technology. According to the IEA, it is possible for India to achieve climate neutrality in the mid-2060s, but this will require additional investments of \$1.4 trillion. India does not need to be persuaded to combat climate change, which it considers to be an important national interest, but help in its energy transformation.

Support for the second "green revolution" in India—the first took place in the 1960s in agriculture—should become a priority area of the strategic partnership with the EU. The two sides launched the Climate and Clean Energy Partnership in 2016, and the EU is funding a number of joint projects, including loans from the European Investment Bank. In March this year, the EU joined the CDRI, and the Climate Dialogue is expected to start in April. The key will be the creation of additional financing opportunities (both public and private) and technological cooperation supporting, among others, improving energy efficiency or the development of renewable energy and electromobility in India. Not only is this necessary to halt climate change but also it would create enormous business opportunities for European companies.

For Poland, a just and green transformation may be a key area of cooperation with India. An intensification of contacts could be boosted by Poland's joining the International Solar Alliance or CDRI. The government of Poland may also propose the establishment of a Polish-Indian technology fund that would support joint research and investments in green technologies.