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The energy trilemma (balancing energy affordability and accessibility while maintaining security of supply and ensuring environmental protection) shifted in 2022 to an overwhelming emphasis on energy security, particularly in developed countries. This created negative consequences for developing countries, regarding energy affordability and the 3Fs: 'food, fuel, and fertilizers'. In light of these challenges, global dialogue and coordination fora have assumed added importance. The G-20 is a grouping of 19 developing and developed countries (including China), plus the EU.¹ Together these countries represent 90 per cent of global GDP, 80 per cent of global trade, and 67 per cent of the world's population.

India holds the G-20 Presidency in 2023 and will lead a nine-month global deliberation to shape the agenda for a September summit. India's priority areas include the energy transition, climate finance, clean technology-sharing instead of dominance, pursuit of the Sustainable Development Goals (SDGs)including the 3Fs, and digital public infrastructure.²

For the first time, all G-20 troika members are developing countries (Indonesia, India, and Brazil).³ They will reinforce a common set of relevant priorities, address the 3Fs, and seek more balance in the energy trilemma, away from energy security alone and towards a greater emphasis on affordability and access, as well as environmental protection.

The work of the G-20 takes place on two tracks, leading up to the summit: the Finance track, and the Sherpa⁴ track. The latter will set the development and energy agenda for the G-20 leaders. Sherpa will lead 13 working groups covering: energy, trade, investment, development, employment, tourism, agriculture, digital infrastructure, health, education, culture, environment, and anti-corruption. India has planned over 200 meetings across 32 workstreams in 50 cities, involving ministers, government officials, and civil society members in the lead up to the summit.

India aims to influence the global conversation in three primary areas: (i) *energy transition*, including pushing for equal treatment of all fossil fuels; (ii) *multilateral development bank (MDB) reforms to support climate finance* through new financial instruments that do not increase developing country

¹ Argentina, Australia, Brazil, Canada, China, EU, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, UK, and USA.

² Digital infrastructure refers to physical resources necessary for the use of data, computerised devices, systems for scaling and faster impact, and monitoring and verification. India has nearly half a billion internet users and many indigenous digital services, platforms, and solutions it is willing to share with peers.

³ The "troika" refers to the past, present, and next presidency of the G-20. Its mandated collaboration ensures continuity of initiatives underway, as well as buy-in to new areas.

⁴ Sherpas are personal representatives of leaders of member countries at such international summits, with the term being derived from the Nepalese who serve as guides for mountaineers in the Himalayas.



indebtedness when borrowing for global public goods; and (iii) *digital public infrastructure* to support energy efficiency and SDG progress, through enabling adoption of emerging technology areas such as 5G, IoT, artificial intelligence, machine learning, blockchain, drones, robotics, additive manufacturing, nano-based devices, etc.

India has some experience with digital technology in SDG applications in agriculture, health, cyber security, smart cities, and automation, with special focus on solving real-life problems with information technology leading to *increased energy efficiency/carbon credits*. Smart meters are another application that can lead to better energy management, provided that the underlying digital infrastructure is in place. India will support other developing countries by offering some of these digital technologies.

Other priority areas include:

- Green Grids Initiative/OSOWOG: ⁶ Cross-border transmission networks for trade in solar energy during evening peaks, taking advantage of time differences e.g Oman/Qatar have afternoon sunshine when India and southeast Asia are dark; solar trade can avoid the use of fossil fuels at the evening peak.
- Global capacity building and climate resilience-building associations such as the International Solar Alliance; Global Biofuels alliance (Biogas, Ethanol); nature-based carbon sink solutions (e.g., Mangrove Alliance); the coalition for Disaster Risk Reduction etc. These will be strengthened for continuity beyond India's presidency.
- Green hydrogen and shared R&D to lower costs in pursuit of clean fuels for industrialisation and transport needs.
- Innovative low-cost cooling technologies (in the face of life-threatening temperature rises).
- Adaptation in the face of climate hazards (heat, drought, flood, fires) that jeopardize food security and SDG nutrition achievements. 2023 is the UN's international year of millets, a drought- and heat-tolerant crop.
- "Mission LiFE" which pushes climate action from the country level down to individuals, companies, and governments, with proposals for their respective roles

India believes that today's 'energy transition by only those who can afford it' must not continue to be the way forward.

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⁵ India has a large ongoing government program to reduce the use of fossil fuels (including diesel) in agricultural pumping and to incentivize farmers, through direct digital payment transfers, to shift to solar powered pumps. There are also numerous ICT-based energy efficiency applications (apps) and pilot projects being tried in various parts of the country, for intelligent water management, smart buildings, solar powered refrigerated warehouses to reduce post-harvest losses, smart transport etc, all with a view to saving energy and realizing quantifiable savings. All these technologies use the internet for real-time communication and data capture, which is essential for entering these initiatives in the carbon credits market. India has frequently offered to share its digital technologies with other developing countries at cost or as a donation, eg COWIN which is its Covid vaccine tracking portal that contains details of over 2 billion administered vaccinations.

⁶ One Sun-One World-One Grid, an initiative of PM Modi that is backed by several countries including the UK, currently at feasibility study.