

## Doing More With Less Matters

- *Amitabh Kant\**

On November 1, Indian media reported that the country experienced its warmest October in 123 years, with the India Meteorological Department (IMD) clocking unprecedented night-time and mean temperatures. Meanwhile, in Japan, Mount Fuji remained without its iconic snow-cap in October for the first time in 130 years, marking the slowest snowfall since records began in 1894.

These alarming trends are part of a growing pattern: the rates of natural disasters are escalating, and rising energy costs have only compounded the issue, leaving households and businesses struggling to cope. In tandem, geopolitical conflicts and disruptions in global supply chains have further destabilized energy markets, creating a dual challenge for nations worldwide.

We face an urgent need for alternative energy sources to ensure reliability and affordability, coupled with the pressing requirement to safeguard the health of our planet. Against this backdrop, the recent commitment by G20 leaders under India's presidency to double the pace of energy efficiency by 2030 is a critical roadmap toward sustainable economic growth and climate resilience. This initiative has the potential to transform India's energy landscape and can serve as a blueprint for other countries as they navigate this complex transition to a decarbonised future with the help of renewables, electric mobility, battery storage and green hydrogen.

Energy efficiency is often described as the low-hanging fruit of climate action. It refers to using less energy to provide the same level of service or output, thereby reducing energy waste and lowering greenhouse gas emissions without sacrificing performance or comfort. A real-world example of this is the transition from traditional incandescent light bulbs to LED bulbs, which use up to 80% less energy while providing the same amount of light, and India has successfully showcased it through the UJALA scheme with savings of ~200 billion/year and curbing annual CO2 emission by 37 million tonnes.

Reducing energy waste enables nations to meet their growing energy demands without corresponding increases in emissions. The International Energy Agency (IEA) projects that nearly one-third of India's anticipated peak electricity demand by 2040—driven primarily by household appliances such as air conditioners, refrigerators, and fans—can be mitigated through enhanced energy efficiency. This translates into lower energy bills for consumers, as well as fewer power cuts and improved energy security for all, reinforcing the case for immediate action on this front.

India's commitment to doubling energy efficiency is a central pillar of its plan to achieve its Nationally Determined Contributions (NDCs) under the Paris Agreement, which aims for a 45% reduction in carbon intensity and a reduction of one billion tons of greenhouse gas emissions by 2030. Hitting these targets hinges significantly on energy efficiency

improvements, making it indispensable to India's long-term goal of reaching net-zero emissions by 2070.

Moving forward, we must identify and address the bottlenecks that currently hinder the adoption of energy-efficient technologies. Key among these are financing challenges, the need for sustainable supply chains, and existing policies that may inadvertently stall progress. For emerging markets, the demand for energy is essential for development, and to grow, the developing world must look to sustainable progress through improved energy efficiency, integration of renewable resources, and the adoption of innovative technologies that promote cleaner and more efficient energy systems. And to do this – they need financing, supportive policy frameworks, and continued international collaboration to ensure access to the necessary resources, supply chains, and expertise.

One such critical area for collaboration is the sharing of best practices among countries in the Global South, such as Brazil, South Africa, and Indonesia. These nations often face similar challenges in enhancing energy efficiency, and working together can lead to significant advancements. For example, India can champion initiatives that facilitate access to investments and technologies, particularly for manufacturing countries.

Additionally, establishing systems that uphold stringent energy performance standards can protect countries from low-quality and inefficient imports. This is particularly vital as the adverse effects of environmental dumping – i.e. the flooding of markets with low-quality products at lower prices – could undermine local businesses and public health.

### **Build Smarter**

For the Global South, the infrastructure sector – particularly buildings – presents a significant opportunity for energy efficiency improvements, particularly with the soaring demand for cooling systems. IEA estimates that cooling currently accounts for 15% of the electricity used in buildings and 5% of total global electricity consumption. Implementing Minimum Energy Performance Standards (MEPS) for all appliances can deliver substantial reductions in overall energy use; for instance, mandating that all new lighting is LED by 2030 and that all air conditioning units sold by 2035 are best-in-class can lead to a projected 25% drop in energy consumption.

Additionally, the establishment of robust building energy codes can guarantee that new constructions contribute to a more sustainable future. These codes will ensure that buildings are designed not only to reduce energy consumption, but also to utilise materials in ways that minimise waste and environmental impact.

It is also necessary to implement policy measures that prioritise universal access to sustainable cooking technologies by 2030, particularly in regions that continue to rely heavily on fossil fuels. Access to clean cooking solutions can significantly reduce indoor air pollution, improve public health—particularly women's wealth—and decrease reliance on unsustainable energy sources.

The industrial sector is another primary consumer of energy, accounting for 43% of India's energy consumption. Opportunities for energy efficiency are abundant, particularly within energy-intensive industries and MSMEs. Governments should create conducive conditions for the adoption of advanced, energy-efficient technologies, such as high-efficiency motors and heat pumps. These technologies can also lower operational costs, making them both lucrative and energy-saving.

Parallely, the transport sector—responsible for over 80% of global energy demand—needs urgent attention. Establishing comprehensive fuel efficiency standards is a necessary step toward improving the overall efficiency of public and commercial transport fleets. Sharing India's successful mass deployment of electric buses could inspire similar projects in other countries, potentially changing the future of urban mobility.

Investment is the lifeblood of any initiative aiming for significant change. To triple the investment in energy efficiency—up from \$300 billion to \$840 billion annually by 2030—we need an innovative financing framework. Strategies such as creating blended finance vehicles and designing the right financial instruments for private investors can unlock the substantial funds needed for energy efficiency projects.

Tax, subsidies, and public-private partnerships are essential components of the broader policy framework that supports energy efficiency initiatives. With the right policies, investments, and collaborative frameworks in place, countries can unlock a multitude of opportunities that energy efficiency provides.

For India, leading this charge on the global stage strengthens its position as a climate leader while amplifying collective efforts towards sustainable development. The resolve to embrace energy efficiency can truly drive transformative change, offering a pragmatic solution to the pressing challenges of our time. By prioritising this strategy, we can create a future where economic development aligns seamlessly with environmental responsibility – ensuring leave behind a better world for future generations. (1150 words)

*\* The author is India's G20 Sherpa and former CEO, NITI Aayog. Views expressed are personal.*

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