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# **SME WORLD** Asia

*The Next Level* e-Edition



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**Dr. Arvind Kumar**  
President, India Water Foundation

# Metamorphosing into a net zero Economy?

**“At the COP 27 climate conference in Egypt, we need commitments that will deliver a reduction of emissions by 45 per cent by 2030 so we can reach net zero emissions by mid-century” said UN Secretary General Mr. Antonio Guterres highlighting the imperative of bringing countries on board to have set a net-zero targets, covering about 76% of global emissions.**

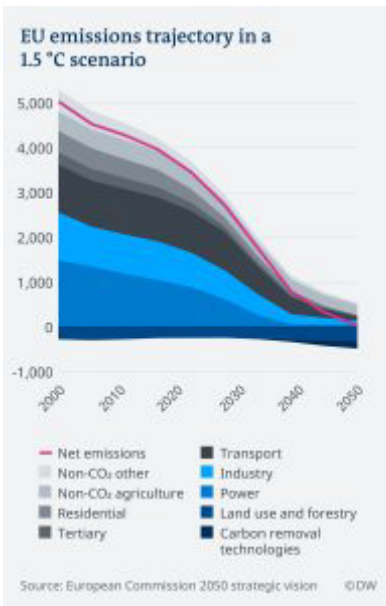
Climate change is one of the most pressing problems facing our world today. Its afflicting nature from present families to their children's future is a worrisome thought. So, it is in the interests of everyone that we see systemic change that averts climate catastrophe and unlocks the sheer potential of green growth. The recent Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) categorically stated that the world faces cataclysmic consequences of rising temperatures unless nations make serious efforts to overhaul this course, by reducing greenhouse gas emissions. ‘Net Zero’ refers to offsetting new greenhouse gas emissions with other actions, to

(supposedly) make net emissions zero. This concept has become the kernel for action to deal with global warming and climate change induced by anthropogenic activities.

At the 2021 COP 26 the 26th Conference of Parties that signed the United Nations Framework Convention on Climate Change in 1994—many countries agreed to

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goals of achieving Net Zero by 2050. While these goals may still be too weak- kneed to completely remove the risk of catastrophe, they do represent major progress over previous commitments. No, commitments made by governments to date fall far short of what is required. Current national climate plans – for all 193 Parties to the Paris Agreement taken together – would lead to a sizable increase of almost 14% in global greenhouse gas emissions by 2030, compared to 2010 levels. Getting to net zero requires all governments – first and foremost the biggest emitters – to significantly strengthen their Nationally Determined Contributions (NDCs) and take bold, immediate steps towards reducing emissions now. The Glasgow Climate Pact called on all countries to revisit and strengthen the 2030 targets in their NDCs by the end of 2022, to align with the Paris Agreement temperature goal.





Race to Zero is a global campaign to rally leadership and support from businesses, cities, regions, investors for a healthy, resilient, zero carbon recovery that prevents future threats, creates decent jobs, and unlocks inclusive, sustainable growth. It mobilizes a coalition of leading net zero initiatives, representing 1,049 cities, 67 regions, 5,235 businesses, 441 of the biggest investors, and 1,039 Higher Education Institutions. These ‘real economy’ actors join 120 countries in the largest ever alliance committed to achieving net zero carbon emissions by 2050 at the latest. Collectively these actors now cover nearly 25% global CO2 emissions and over 50% GDP.

The Indian federal cabinet approved the new national emissions pledges, known as Nationally Determined Contributions (NDCs). The new NDC will commit India to reducing the emissions intensity of its GDP by 45% from its 2005 level in the next 7 years - a 10% increase over its previous 2016 pledge. India will also aim to meet half of its energy demands from renewable sources, such as solar and wind, by 2030. This, too, is a boost over its previous target of 40%. The decision on enhanced NDCs demonstrates India's commitment at the highest level for decoupling of economic growth from greenhouse gas emissions.

As rightly said by former Australian Prime Minister Kevin Rudd, who is Asia Society's global president and the convener of the High-level Policy Commission on Getting Asia to Net Zero, said, “India's net zero ambitions are not just important for the global fight against climate change – they can also be a boon for the country's own sustainable and inclusive development. If approached with comprehensive, holistic planning, in a way that attracts additional investment and ensures a just transition for those most reliant on fossil fuels, India's path to net zero can create new jobs, secure livelihoods and improve health.”

India is at the apex of two significant transformations. The first is its economic transformation. India will soon be the most populous country in the world – and will be home to one of the youngest populations in the world with more than 62% of the population in the working age group. The country is also home to a large population that lives below the poverty line. A robust and equitable economic growth will be critical to meet

the growth and lifestyle aspirations of 1.4 billion people. The manufacturing sector will need to grow to supplement the impressive services sector economy and cater to the large population living off the agrarian economy.

The second is its green transformation. India's per capita energy use today is lower than most nations somewhere around 6500 kWh, its use of materials such as iron is still modest, and its manufacturing sector is still relatively underdeveloped. Unlike developed nations like Nordics who aim to reduce their CO2 emissions at least 40% by 2030 compared to 1990 levels with mature greenhouse gas (GHG) infrastructure, India is yet to build a lot of its GHG inventory. However, as India grows, so will its GHG footprint. While India's growth will need to factor in higher consumption levels across its population, it has a unique opportunity to leapfrog this journey through low/no emissions technologies as India's green transformation is an attractive, crucial and mandatory component of its overall economic transformation.

A Green New Deal for India will necessarily implicate the five sectors that contribute to almost all its GHG emissions:

In addition to the five sectoral pillars, India will need four cross-sectional enablers for its green transition. These include an accelerated approach to green technology innovation, an overarching framework to catalyze green finance, an integrated approach to carbon capture, utilization and storage, and a plan for climate adaptation.

**Pillar 1 – Energy:** The energy sector accounts for ~40% of India's GHG emissions, with coal being the dominant source of total fossil CO2 emissions. Although India has already achieved the target of 40% of installed electricity capacity from non-fossil fuel based sources as an initiative under de-carbonizing the energy sector a foundational priority for India's energy sector which will require a triad approach: replace fossil fuels with renewable; reduce fossil CO2 emissions from legacy infrastructure through enhanced efficiencies; and remove unavoidable carbon emissions through carbon sequestration.

## Pillar 2 – Mobility:

The mobility sector is heavily reliant on oil and contributes to almost half of India's oil demand. A green transformation of mobility will need a shift in modal mix from road to rail, as well as a broad-based fuel diversification approach to encourage sustainable fuels (bio-fuels, CNG, LNG) in the immediate term, electrification in the medium term and hydrogen-based heavy mobility in the long term.

## Pillar 3 – Industry:

Manufacturing is a key contributor to India's GHG emissions, with the iron and steel, cement, and chemicals and fertilizers sectors having the highest CO<sub>2</sub> footprint. A robust decarbonization of these sectors will need demand-management measures such as circular economy acceleration; continued energy efficiency improvements; electrification of heat; carbon capture, utilization and storage; low carbon fuels such as biomass and hydrogen; and innovative technologies with non-fossil feedstock.

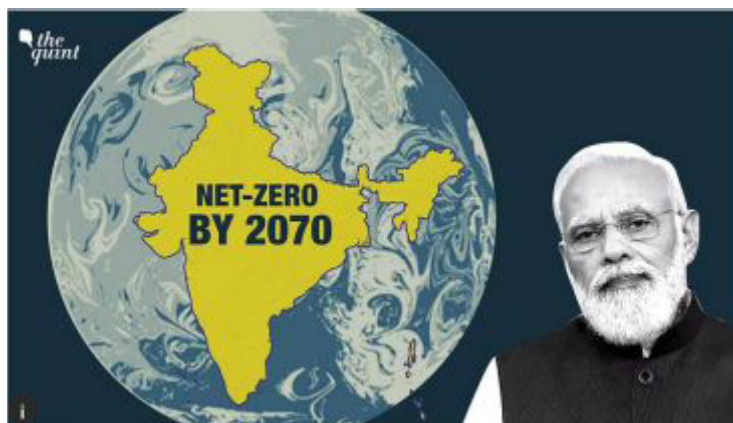
## Pillar 4 – Green Buildings, Infrastructure and Cities:

India's top 25 cities contribute more than 15% of its estimated GHG emissions. India's transition to greener cities, buildings and infrastructure will need a rethink of its approach to urban planning with a focus on transit-oriented urban development and an emphasis on low carbon buildings and infrastructure construction.

## Pillar 5 – Agriculture:

The agriculture sector is the largest contributor to nitrous oxide (N<sub>2</sub>O) and methane emissions. To reduce agriculture emissions, India will need a national campaign to empower, educate and enable more than 100 million farmers in adopting precision agriculture, sustainable animal husbandry and green energy.

In addition to the five sectoral pillars, India will need four cross-sectional enablers for its green transition. These include an accelerated approach to green technology innovation, an overarching framework to catalyze green finance, an integrated approach to carbon capture, utilization and storage, and a plan for climate adaptation. By reaching net zero by 2050, India could boost annual GDP by as much as 7.3% (\$470 billion) and create nearly 20 million additional jobs by 2032, compared with the current policies. Across the five pillars and the four enablers, it is estimated that a Green New Deal for India could represent upwards of a \$15 trillion economic opportunity by 2070, with the potential to create more than 50 million net new jobs. With concerted action, \$1 trillion of this opportunity could potentially materialize within this decade. In this



context, it is suggested that now it's time for a Green New Deal for India. The government, the private sector, investors, civil society organizations and individual citizens need to step forward and accelerate the Next Holistic Green Revolution to make transforming into a net zero economy a reality but not a chimera

## 20 small units to be set up in toy cluster in Indore

**T**he toy cluster coming up in Indore will have 20 small units and will give employment opportunities to over 2,500 people, said Chief Minister Shivraj Singh Chouhan.

He said that 42 clusters had been approved in the state, out of which a toy cluster is being developed in the city.

The CM was unveiling the foundation stone of a toy cluster electronically at a function held at Amardas Hall recently.

The toy cluster is being established at a cost of Rs 2.84 crore, which will attract investment of about Rs 80 crore and offer 2,500 jobs to youths. In the first phase of this cluster investment of Rs 80 crore is likely to be made.

The state government has also set an aim to offer 1 lakh government jobs a year.

CM Chouhan said he would soon provide appointment letters to about 16,000 teachers on September 3 through a programme being organised in Bhopal. (KNN)