TMS TECHNOV M SYSTEMS PRIVATE LIMITED

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Decarbonization—A Perspective

Introduction

India is amongst the most vulnerable countries to fallout of weather changes, ranking 7th on the scale of Vulnerability

Indian governmental panel on climate change (IPCC) has concluded that limiting global warming to 1.5°c above pre industrials is beyond the reach. India itself has seen 0.7°c increase on surface air temperature during last 120 years

Despite low per capita emissions of 1.9 tonnes Co2, India leads as fourth largest emitter in absolute terms. While countries like EU, US, JAPAN &CHINA, have envisaged the target dates s 2050 and 2060 respectively, India is also looking up to achieve the Net zero. Looking forward to achieving net Zero, India is already in the forefront to build systems & processes.

Inside this issue

Scenario Analysis:

Reforms and developmental activities, Micro and Macro leading to paradigm shift towards the **Net zero.**

Given the seriousness of the case, that global warming and climate change will create an havoc in people's lives, a comprehensive policy was adopted that converged the governance, planning and execution at the apex administration levels. For instance, the net zero, concept was incorporated into all systems and processes which were reformed to match the requirements leading to net zero model.

"The share of renewable energy in electricity generation was 35.86% as on March 2020"

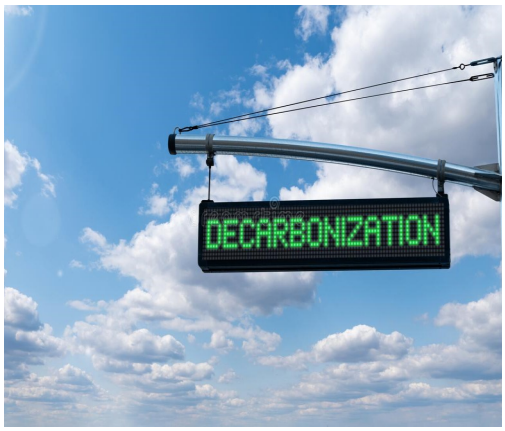
Facts Sheet

There has been leap by India , adopting the next generation refining standards, namely BS-6. To match the steps taken by refining companies, Auto companies made a transition to next generation BS-6 Engines. The change enforced as a policy by the government, involved complete overhauling of design, Engineering and manufacturing. In addition, the share of renewable energy in electricity generation was 35.86% as on March 2020 considerable increase in share, while compared with previous decade and comparatively greater than global average. As on March 2020, India's total installed capacity for generation was 372 GW out of which the share of renewables stood at 134.7 GW

"By 2070 India will achieve the target of 'net zero' carbon emissions"

Evolution

Rapid development and expansion of Highways, water ways, ports, railways and Airports were prioritized, improving the logistics scenario. The change in framework of tax governance to GST brought about the uniform taxation streamlining the total movement of Goods thro' out the country, thus saving the time and improving the efficiency of transportation country wide. For instance, the steep increase in fuel prices did not make a profound impact on cost of transportation due to improvement in efficiency of logistics and change in taxation standards to GST. Expansion of electrification of railways, improving the condition of tracks, building dedicated freight railway corridor, increasing the number of air connectivity to tier 2 and tier 3 cities, have brought about the convergence in logistics and transportation which impacted as the savings of GHG.



Digitalization

Having partially stated the improvements, systems and governance impacting the GHG emissions to lower levels, further incorporation of digital systems in governance such as use of Aadhaar numbers for direct benefit transfers, governmental reliefs and payments to farmers, digital weather surveillance using satellites, and expansion of digital access to banking and financial systems to the entire population of the country has added value in decision making of a common citizen, thus bringing down the barriers impeding the ease of living. The metamorphosis in town planning, designing better drainage systems, increased housing facilities and easing out the congestion in road traffic thro expansion of metro rail has further reduced the GHG emissions. The vaccination coverage to 100 crore population has eased pressure on the economy and has given us an edge to fight the pandemic.

In the recent years India has become a major player in global supply chain management, which means an acceleration of manufacturing growth. Continuous efforts for cheaper energy resources are still continuing at both macro and micro level.

TMS has steadfastly focused its resources to provide solutions, by innovating technologies to implement micro improvisation mechanisms for the manufacturing sectors. Fuel management by installation of magnetic resonators is one such patented technology mass customized to micro improvise the combustion efficiency of high capacity & efficient utilities such as gas turbines, boilers and furnaces.

Technology

Hydrocarbon fuels are non-renewable and its optimized utilization compels us to rethink on fuel as most significant cost driver. and our technology when implemented yields a quick payback, micro level improvement in utilities, saving energy that gets converted into revenue.

Deliberating on the above, fuel management by the installation of magnetic resonators integrates the benefit of strategically managing the direct costs and indirectly managing the social costs by saving the scarce fuel resource and mitigating the environmental pollution.

Last but not the least, mitigation of climate change, dependent on optimized utilization of fossil fuels which compels us to rethink on fuel as most significant cost driver. and innovative technologies when implemented results not only saving energy that gets converted into revenue, but also mitigates the environmental pollution.

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