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POWER, CLIMATE CHANGE AND COAL FRIENDS OR FOES ??

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Catastrophic fires in Australia and USA to COVID-19 pandemic, global disasters have been visiting us much more frequently now, leading us to believe that we need to take a relook at how we live and how we use natural resources for our personal benefits.

A certain section of society benefits from economic processes leading to global environmental degradation. This global environmental damage is passed on to humanity at large or to future generations. Weaker sections of the society are the hardest hit.

Scientists have put their heads together to find out ways and means to tackle climate challenge. They feel generation of energy through Fossil Fuels is at the heart of climate challenge. Green House Gases formed because of combustion blanket earth and trap Sun's heat leading to Global Warming.

Fossil fuels such as coal, oil and gas are the largest contributor of global climate change and counts for 75% GHGs and nearly 90% of CO₂ emissions.

Science is clear. To avoid worst impact of climate change- emissions needs to be reduced to half by 2030 and reach net zero by 2050. This requires ending our reliance on fossil fuel and investing in alternative sources of energy that are clean, accessible, affordable, sustainable, and reliable.

Why net zero ?

Net zero requires us to cut GHG emissions to as close as zero as possible with any remaining emissions re-absorbed from atmosphere by oceans and forests for instance.

Science has also shown that in order to avert worst impact on climate change and preserve a livable planet, global temperature needs to be kept at 1.5°C above pre industrial levels .

Currently it is already 1.1°C warmer than what it was in late 1800s and emissions continue to rise.

To cut it to under 1.5°C, COP26 required emissions to be reduced by 45% by 2030 and net zero by 2050.

70 countries including world's biggest polluters, China, USA, European Union have set a net zero target covering 76% of global emissions.

Are we on track to reach net zero by 2050? Answer is No. Current National Climate Plan of 193 countries would lead to increase of almost 11% in GHG by 2030.

Top seven polluting countries i.e. China, USA, European Union, Russia, Brazil account for half of global emissions.

Group of 20 – (which includes India) are responsible for 75% of GHG.

Today there are around 8500 coal power plants in operation worldwide, producing 2000 GW of electricity. They generate over 3rd of all electricity and produce 5th of global GHS's emission – more than any other source.

While cutting emissions is a global priority more than 300 new power plants are to come online in next five years.

Most of existing coal fired generation is in emerging and developing economies and 60% of electricity in China and India is based on coal.

What about India?

India will continue to depend on coal fired power for the next 20 years. India's coal production is likely to rise to 1500 MMT in next few years.

What do we need to do-

a) Large number of plants are old, inefficient and need to be scrapped. Instructions had been given to discontinue their use but now in view of the emerging power demand, government has

revised its instructions to continue to use them till alternate power sources are available. New plants are plants based on HELE technology (High-efficiency, low emissions) are more efficient and reduces emissions.

- b) Plan to put FGD- Fuel Gas Desulfurization have been postponed because of its cost. How long can we postpone it?
- c) To increase our reliance on power plants based on renewables. India's non fossil power generation capacity will grow up to 174 GW in 2022. This is remarkable.

d) And finally, there must be an attempt to reduce wastage of electricity and save as much by efficient use.

Finally:-

a) Efforts to reduce GHG's have to be on global scale.

b) Advanced western countries responsible for biggest pollution load have to provide funds to 'Emerging Economies' to finance their shift to renewables. A start has been made with establishment of 'Loss and Damage Fund'

- c) We also have to make sure that we do not fight a war in next 20 years as a war always upsets the cost balance for most of the world.**

- d) It will be a long and not an easy battle.**

THANK YOU