

GREATER COLLECTIVE AMBITION IS THE NEED OF THE HOUR TO TACKLE GLOBAL WARMING

Relevant for: Environment & Disaster Management | Topic: Environmental Degradation - GHGs, Ozone Depletion & Climate Change

The science is clear now. Due to human activity, since pre-industrial level, the world has warmed on an average by 1°C.

People, ecosystems and livelihoods across the world are experiencing various impacts of this change at varying levels, as some regions are warming faster than global average. Urban areas are having additional urban heat island effect.

The poor are getting affected disproportionately with respect to their limited contribution to a rise in global temperature. The Intergovernmental Panel on Climate Change (IPCC) report released on Monday shows that even half a degree rise in global warming now matters.

Small islands, megacities, coastal regions and high mountain ranges will be the areas most affected by climate change. India, with all such vulnerable areas, will experience multiple impacts simultaneously.

The assessment shows there are clear benefits of keeping global warming to 1.5°C compared to 2°C in terms of crop losses, and heat waves in cities, forest lands and human health benefits.

The next ten years will prove to be critical in terms of human responses across all economic sectors and countries to mitigate climate change. This would require greater collective ambition.

Any mitigation has side effects but will need to be managed to reduce trade off to get benefit of the mitigation.

Carbon dioxide (CO₂) emissions would need to decline substantially before 2030 to avoid warming of more than 1.5°C in the middle of the 21st century followed by large scale carbon dioxide removal.

The CO₂ reduction by mid-century needs to be near net zero through tree plantation, bioenergy combined with carbon dioxide capture and storage, changed land management as well as some approaches that are at very early stages of development.

Achieving this goal would need transitions in various sectors — energy, land, buildings, transport, food and diets, city planning — simultaneously. New technologies, cleaner energy sources, less deforestation, better land management, sustainable agriculture, all are needed to bring down the CO₂ level.

By 2050, renewables supplies need to be halved to two-thirds (49-67%) of primary energy, while coal usage needs to drop by 1-7% . Even then, we would need to remove CO₂ from the air to offset remaining emissions.

Energy efficiency is a necessary condition. Current rate and speed of actions can lead the world to much more than 3-4°C warming by 2100 . The sooner emissions fall, the more options we keep on the table. Doing more now reduces reliance on unproven and risky techniques to remove CO₂ from the air in the future.

Challenges will particularly be faced in coastal areas — sea level rise will continue, even if warming stops today. However, there's still a need to adapt, even if we limit warming to 1.5°C. For example, the impacts of climate change in the ocean are increasing risks to fisheries and livelihoods of many that depend on it.

Climate change impacts and how we respond to them are closely linked to sustainable development and the United Nations sustainable development goals. These goals balance social well-being, economic prosperity and environmental protection.

As part of limiting global warming to 1.5°C, a mix of measures are needed to adapt to climate change and reduce emissions. These measures, if carefully selected, will help in meeting the sustainable development goals, which balance social well-being, economic prosperity and environmental protection.

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