

CLIMATE CHANGE

Are we doing enough?

Fossil fuel companies and their bankers have spent lavishly for decades to capture the policy-making process in key countries and to cynically lie to the public about the climate crisis... This moment in time should be — and can be — an epiphany for our global civilisation.

Al Gore
Former US vice president

The world on Friday observed Earth Day celebrating environmental diversity of Earth and highlighting ways of protecting our habitat, the only place in the known universe where life can survive.

But are we doing enough to save our home? Are the governments keeping their pledges, which they made at the 2015 landmark Paris climate summit and, more recently, at the Glasgow climate summit?

The latest UN's Intergovernmental Panel on Climate Change (IPCC) report doesn't suggest that.

The world's nations, 278 top climate experts said, are taking our future right to the wire.

The 2,800-page report — by far the most comprehensive assessment of how to halt global heating ever produced — documents "a litany of broken climate promises", said UN chief Antonio Guterres in a blistering judgement of governments and industries.

"Some government and business leaders are saying one thing — but doing another. Simply put, they are lying. And the results will be catastrophic," Guterres said.

Two related reports from the IPCC, released last August and earlier this year, offered a bleak vision of what that warmer world would look like.

Human carbon pollution has already pushed the planet into unprecedented territory, ravaging ecosystems, raising sea levels and exposing millions of people to new weather extremes. But the reports said the worst is yet to come.

Collapsing ice sheets would raise sea levels at rates not seen in human history. Coral reefs could vanish, along with

Despite pledges, the governments, influenced by businesses, are still investing in projects contributing to global warming. Financial institutions still fund fossil fuel projects more than renewable energy. And the media — both traditional news outlets and newer social media companies — have provided platforms for climate disinformation and presented "both sides" of debates long after the scientific consensus was unequivocal, the IPCC added.

The IPCC said humanity has less than three years to halt the rise of planet-warming carbon emissions and less than a decade to slash them by nearly half.

This means coal use needs to be almost eliminated within 30 years. Gas dependence should be reduced by 45 percent, oil use

transform so quickly, given the history of the past 30 years.

"That's the problem," she said. "And it's depressing."

But the report also says that daunting task is still — only just — possible. Whether humanity can change course is largely a question of collective resolve, according to the report.

The report details how coordinated efforts to scale up renewable energy sources, overhaul transportation systems, restructure cities, improve agriculture and pull carbon from the air could put the planet on a more sustainable path while improving living standards around the globe.

The report finds other good news from the world of climate policy: Some 56



must fall 60 percent by the middle of the century and humans must find near-term ways to slash emissions of potent, planet-heating methane. Some existing fossil fuel infrastructure will have to be decommissioned early or used at less than full capacity.

But cutting emissions is no longer enough, the IPCC said. Technologies to suck CO2 out of the atmosphere — not yet operating to scale — will need to be ramped up enormously.

This change won't come cheaply, the report found. Abandoning coal power plants and leaving gas resources unburned could cost trillions of dollars. Achieving necessary shifts in the electricity sector will require about \$2.3 trillion per year between 2023 and 2052.



After a year of reduced emissions due to Covid pandemic, global emissions hit record high in 2021

UN report says governments are not doing enough to curb emissions

For a "liveable future", humanity must halt the rise of planet-warming carbon emissions by 2025

World has to cut emissions by 43 percent by 2030 and 84 percent by mid-century from 2019 levels to give us a shot at capping global warming at 1.5 degrees Celsius

Cutting emissions is no longer enough. Technologies to suck CO2 out of the atmosphere will need to be ramped up enormously

Any rise above 1.5C risks the collapse of ecosystems and the triggering of irreversible shifts in the climate system (melting of icecaps, Carbon-absorbing Amazon forest becoming carbon emitter etc.)

The IPCC contributing author Dana Fisher, a sociologist at the University of Maryland who has studied the environmental movement since the 1990s, said it is "unfathomable" that governments and other institutions will

countries that generate more than half of global carbon pollution have enacted legislation aimed at reducing greenhouse gases. And more than 10,500 cities and nearly 250 regions that are home to more than 2 billion people have made voluntary climate pledges.

These commitments have not yet translated into emissions cuts on a global scale. But at least 18 countries have managed to reduce their carbon pollution for at least 10 years while their economies continued to grow. This proves that the world doesn't have to choose between development and sustainability, said Patricia Romero Lankao, an environmental sociologist and lead author of the report.

While government policies, investments and regulations will propel emissions cuts, the IPCC made clear that individuals can also make a big difference.

Cutting back on long-haul flights, switching to plant-based diets, climate-proofing buildings and other ways of cutting the consumption that drives energy demand could reduce greenhouse gas emissions 40 to 70 percent by 2050.

However, in chapter after chapter, the IPCC underscored that addressing climate change was not simply about replacing coal power with solar panels or exchanging an internal combustion engine car for an electric vehicle. It entails coordinated, comprehensive "societal transformation," the authors said.

"Individual behavioral change is insufficient" to alter the world's warming trajectory, the report said, unless laws, institutions and cultural norms also shift. The report recommends passing "policy packages" aimed at wide swaths of the economy that can be more effective, enhancing cooperation between countries to help spread new technologies and protecting the most vulnerable people and places on the planet.

At COP26, the US and China — countries responsible for 43 percent of CO2 emissions — signed an unexpected joint declaration promising to boost climate cooperation over the next decade. But the recent developments and tensions among the superpowers have put serious question marks on the cooperation that is vital for achieving global climate goals.

We hope world leaders would see beyond their short time goals. And how they will react to the climate warnings will be reflected in the negotiations at COP 27 which will be held in Egypt in November.

INTERNATIONAL DESK



REDUCING GLOBAL WARMING Low cost ways

Not only do we have the tools to slash emissions and curb global warming by 2030, but half of available carbon-cutting options are cost-free or very cheap, UN climate experts say.

WIND AND SOLAR

In 2019, total emissions were 59 billion tonnes, or gigatonnes, of CO2 or its equivalent in other greenhouse gases. The range of options identified by UN's Intergovernmental Panel on Climate Change (IPCC) would enable a reduction in emissions of 31 to 44 gigatonnes by 2030. There are four key areas where the total potential for carbon reduction is highest between now and the end of the decade — solar and wind energy, reductions in deforestation, and restoration of forests and other ecosystems. Of those, solar and wind are also among the cheapest options available thanks to the steep drop in the unit costs of these technologies — down 85 and 55 percent respectively between 2010 and 2019, according to the report. More investment in solar could see an emissions reduction of between two and seven gigatonnes of CO2 equivalent by 2030. Wind energy could save between 2.1 and 5.6 gigatonnes. Most of that potential, according to the report, would have essentially negative lifetime costs because they are cheaper than fossil fuel alternatives. Other energy generation options have a lower overall potential, with a higher cost, such as nuclear power and hydroelectricity.



FOOD AND FORESTS

Protecting and restoring natural habitats is the second most significant area for reducing CO2 emissions. Forests are crucial for absorbing CO2 generated by human activities, and the IPCC found that limiting deforestation and the destruction of grasslands could reduce net emissions between three and almost eight gigatonnes, largely at a low cost. Restoring these types of ecosystems would save one to five gigatonnes. But action in this category would be at the more expensive end of the range considered by the IPCC. Shifting to "sustainable" diets and reducing waste food could save more than two gigatonnes, the IPCC said, but it did not give a cost estimate because of wide global variability and a lack of data.

TRANSPORT AND CONSTRUCTIONS

Electric vehicles (EVs) are the fastest-growing part of the automobile industry and if these cars and trucks are charged with low-carbon electricity they can significantly reduce emissions.



Changes how we travel — switching to public transport and bicycles — can also help. Electrification of global shipping and aviation sectors are also possible. Most industrial processes in general can be decarbonised through a combination of technology using electricity and hydrogen, carbon capture and innovation in the circular use of materials (i.e. recycling and reusing). It is possible to make existing and new buildings in all parts of the world either nearly zero-energy or low-energy. The construction of new highly energy efficient buildings have the greatest potential (between less than one and more than two gigatonnes), although costs are towards the higher end. In industry, meanwhile, most of the options — beyond improving energy efficiency and cutting other greenhouse gas emissions — are associated with higher costs. But the sector still has significant potential for reducing emissions, in particular the switch to less carbon-intensive energy sources.

AGENCIES



Developed countries are the source of 57 percent of all greenhouse gases emitted by humans since 1850, while the least developed countries account for just 0.4 percent of total planet-warming pollution

Globally, the richest 10 percent of households generate as much as 45 percent of emissions

Industry accounts for 34 percent of human-caused greenhouse gas emissions; agriculture, forestry and land use was 22 percent; transport 15 percent; buildings 16 percent; and the energy supply sector 12 percent.

a growing number of animal species. Intensified disasters would wreak deadly chaos, especially in the poorest and most vulnerable communities. Parts of the Earth that currently slow the pace of warming — such as oceans that absorb excess heat — would become less able to help. Carbon-absorber rain forests like Amazon would become carbon emitters. The scarcity of resources would give rise to more conflicts and sufferings.

After decades of watching their warnings go unheeded, some experts wondered how the world would respond to the latest alarm bell, particularly as other urgent problems occupy world leader's attention: the ongoing coronavirus pandemic, economic instability that has raised prices on consumer goods, and a brutal war in Ukraine that has upended the international order.

Despite pledging in the 2015 Paris agreement to limit warming to "well below" 2 degrees Celsius, with an aspiration of not exceeding 1.5C, few nations have yet enacted the policies needed to actually meet those targets.

And countries are not legally bound to honour those pledges.

If the world remains on its current track, global average temperatures are projected to rise 3.2 degrees Celsius (5.8 degrees Fahrenheit) above preindustrial levels by the end of the century. The consequences of such scenario is simply catastrophic, IPCC said.

The world's continued emissions, even in the face of overwhelming scientific evidence about the costs of climate change, are "to a large degree rooted in the underlying structural features of societies," the IPCC wrote.

