

Climate Action Simulation: Rapidly Emerging Nations



To: Chief Negotiators for Rapidly Emerging Nations
(China, India, Indonesia, Brazil, Mexico, South Africa)

Subject: Preparation for the Climate Action Summit

Welcome to the Climate Action Summit. You and leaders from all relevant stakeholders have been invited by the UN Secretary-General to work together to successfully address climate change. In the invitation, the Secretary-General [noted](#) that: “The climate emergency is a race we are losing, but it is a race we can win...The best science...tells us that any temperature rise above 1.5°C will lead to major and irreversible damage to the ecosystems that support us...But science also tells us it is not too late. We can do it...But it will require fundamental transformations in all aspects of society—how we grow food, use land, fuel our transport and power our economies...By acting together, we will leave no one behind.”

The goal of the summit is to create a plan to limit global warming to less than 2°C [3.6°F] above pre-industrial levels and to strive for 1.5°C [2.7°F], the international targets formally recognized in the Paris Climate Agreement. The [scientific evidence](#) is clear: warming above this limit will yield catastrophic and irreversible impacts threatening the health, prosperity, and lives of people in all nations.

You represent the world’s largest and fastest growing developing nations (listed above). The combined population of your nations makes up about 45% of the global population, generates about 25% of world economic output, and has a lower GDP (Gross Domestic Production) per capita and much more poverty than developed nations.

Your policy priorities are listed below. You can, however, propose, or block, any available policy.

1. Subsidize renewable energy (e.g., solar, wind, geothermal, hydropower, and storage).

The renewable energy industry is growing rapidly, but still makes up less a small fraction of the world’s energy supply. Subsidies will help these industries grow, generating jobs in your nations (if you can outpace wind, solar, and battery technology improvements in the developed nations). Storage (e.g., batteries, thermal storage, pumped hydro) and “smart grid” technologies for electric power allow variable renewables like wind and solar to be integrated into the energy system and provide round-the-clock electric power.

2. Reduce emissions of methane, nitrous oxide, and other greenhouse gases. CO₂ is the most prominent greenhouse gas, but other greenhouse gases currently contribute to about a quarter of emissions. These include methane (CH₄), nitrous oxide (N₂O), and a wide range of chlorofluorocarbons and other fluorinated compounds (so-called F-gases). Molecule for molecule, many of the non-CO₂ gases contribute tens, hundreds or even thousands of times more to global warming over the next century than CO₂. Although their concentrations are low, they are growing rapidly.

3. Reduce deforestation. Global deforestation mostly occurs in the tropical forests of your nations, including the Amazon basin, China, India and Indonesia. Protecting forests can reduce those emissions while also preserving biodiversity and protecting water supplies. However, limiting deforestation also reduces potential use of those lands for logging, food production, and other important uses.

4. **Consider afforestation.** Afforestation is the growth of new forests on land that doesn't have trees; sometimes this is land that was previously deforested or degraded. If implemented on a large scale, afforestation could use land that is needed for crops or livestock, thereby increasing food prices. Consider how much land the afforestation policies you and other groups propose would require.
5. **Consider putting a price on CO₂ emissions.** Fossil fuels still dominate the world energy system, and the CO₂ they emit is by far the biggest source of greenhouse gas (GHG) emissions that contribute to climate change. Market prices today do not include the environmental and social harms caused by fossil fuels (their "negative externalities"). Worse, governments around the world, including many of yours, provide \$775 billion to \$1 trillion annually in subsidies to the fossil fuel industry. Economists agree that a carbon price is the best way to reduce global GHG emissions. Consider putting a price on carbon, perhaps phased in over time to give industry and consumers time to adjust. The revenues can be rebated to the public, help offset the costs of other policies, or cut your fiscal deficits. Although carbon prices have been implemented, or fossil fuel subsidies cut, in a few of your countries, they are far lower than the \$30-50 per ton of CO₂, or more, many economists recommend. China is implementing a nationwide cap-and-trade carbon market that will raise the price of CO₂ emissions, but others in your group have not done so. However, you cannot afford to move too fast—the middle classes in your nations are striving to afford the products and services people in the developed nations take for granted—automobiles, air conditioning, air travel, etc., while the poor in your nations seek reliable electricity, clean water, food, health care, decent housing, and other basic human needs—and will acutely feel rising energy costs.
6. **Consider taxing coal.** Many of your nations are still building new coal mines and power plants even though coal is the most carbon-intensive fuel and is responsible for much of the air pollution that harms millions in your nations today. Taxing, regulating, or even phasing out coal could cut emissions rapidly, reduce dangerous air pollution, and improve public health.

Additional Considerations

It is a time of conflict and cross-current in your economies. Your nations all heavily depend on fossil fuels, including coal, and are currently responsible for about 40% of global greenhouse gas (GHG) emissions today, with China alone responsible for over half of those emissions. Collectively, your emissions as well as those from other developing nations account for about 64% of total global emissions. In spite of this, the per capita emissions in your nations are lower than in the developed nations and it is the developed nations that generated most of the cumulative GHG emissions that have created the climate crisis. You believe it is their moral responsibility to cut their emissions, and that policies to address climate change must not slow your economic development and efforts to lift hundreds of millions of your people out of poverty.

At the same time, you recognize that climate change poses grave risks to the prosperity, health and lives of your people. Air pollution from fossil fuels causes serious illness and millions of premature deaths in your nations every year. Sea level rise, extreme weather, droughts, crop yield decline, and other harms from climate change increasingly drive conflict and migration and undermine your national security and the legitimacy of your governments.

The fossil fuel industry opposes change, but your nations and businesses are finding climate-friendly policies can be good for your economies. Energy efficiency, and renewables like wind and solar, are often profitable, create jobs, and improve public health. Even as you continue to build coal plants, you are in a race with the developed nations to determine which will dominate the rapidly growing market for renewable energy, electric vehicles and efficient buildings and industrial processes.