

The Resurgent India

A Monthly National Review

September 2025



“Let us all work for the Greatness of India.”

– The Mother

Year 16

Issue 6

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SUCCESSFUL FUTURE

(Full of Promise and Joyful Surprises)

Botanical name: Gaillardia Pulchella

Common name: Indian blanket, Blanket flower, Fire-wheels

Year 16

Issue 6

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A Declaration

We do not fight against any creed, any religion.

We do not fight against any form of government.

We do not fight against any social class.

We do not fight against any nation or civilisation.

We are fighting division, unconsciousness, ignorance, inertia and falsehood.

We are endeavouring to establish upon earth union, knowledge, consciousness, Truth, and we fight whatever opposes the advent of this new creation of Light, Peace, Truth and Love.

– The Mother

(Collected works of the Mother, Vol. 13, pp. 124-25)

HIGHLIGHTS

DEVELOPMENTS IN RUSSIA-UKRAINE WAR

With the vacuous signaling from the Alaska Summit buried firmly under the carpet, the war has seen a decisive intensification, and an acceptance on the part of Europe that confrontation with Russia may be inevitable. Two trends have stood out:

First, Russia has intensified its incursions into and violations of the airspace of other European countries, such as Poland, Estonia, Romania and in the neutral airspace over the Baltic Sea. These incursions have come within rapid succession of each other, suggesting a deliberate pattern of escalation by Russia. There is little doubt that this emboldened attitude of Russia is a direct upshot of the Alaska Summit through which Trump lent legitimacy to Putin and diluted the incentive to move towards a ceasefire. Whether this show of strength by Russia will lead to a larger escalation is yet to be seen, but, for now, it indicates that ceasefire has been firmly put on the backburner. The war has now entered the domain of psychological warfare where Russia, through its alliances in the Global South with countries like China, and through its military display, is seeking to disconcert Europe.

Its recent provocations show how Russia is committing itself to a risky strategy of provoking North Atlantic Treaty Organization (NATO) in a bid to show that NATO's weak and dispersed response to the Russian transgressions underlie its lack of commitment to fully confront Russia. At any point, this Russian gambit, if taken too far, may backfire, leading to a rapid escalation.

Second, in terms of technological superiority, the intensification of war has also led to rapid changes in Russian and Ukrainian technological capacities. While Ukraine had, over a period of time, mastered the niche domain of cheap drone manufacturing, Russia has also been aggressively expanding its defence industrial base in these technologies aggressively, despite the strain the war has put on its resources. Up until recently, the Russian drones and missiles that were entering Ukraine were being shot down by Ukraine, thereby minimizing the extent of damage. However, the Russians have now upgraded their strategy by developing drones and ballistic missiles that are easily able to dodge and defeat the US Patriot air defence systems being used by Ukraine. The new Russian long-range missiles follow a typical trajectory before diverting and plunging into a steep manoeuvre which can evade Ukraine's air defence systems. Though this new strategy, Russia has been able to damage Ukraine's key military facilities and critical infrastructure ahead of the winters. In September, Ukraine's missile interception rate plummeted from 37 percent to just 6 percent.

These recent trends reinforce the necessity of European and Ukrainian rearmament. The intensification of the war is happening at a time when Europe's key defence ally, the US, has begun to view Europe through a narrow, instrumental lens, and the onus is increasingly falling on Europe to take responsibility for its own security. After relying on American and adopting an uncertain posture against Russia over the last three years, Europe does not have much space left to manoeuvre. It is now waking up to the reality that Ukraine is its first line of defence, and that the possibility of the fall of Ukraine will herald an inevitable blow to the European security

architecture. While Europe is now aggressively expanding its defence production, its continuing internal political weaknesses and external confusion are preventing it from pursuing a determined, unidirectional policy. It is still hoping for a ceasefire, is still playing defensive with Russia, and is still prioritizing economy over defence. This prevarication is proving to be its undoing.

TECHNOLOGY AND WARFARE

The impact of technological advancements on warfare techniques has broken several new grounds, especially with the rapid deployment of Artificial Intelligence (AI), and China appears to have taken a lead in most of these advancements. Till now, the debate on technology and warfare has mainly centered around the question of how technologies can be used to physically subvert the adversary's systems to gain advantage in warfare. However, the debate is now shifting to a new, more comprehensive ground, with China again taking the lead. The latest research within Chinese military circles is around how the very traditional systems and concepts of warfare can be transmuted to a psychological domain.

In this context, the idea of dissipative warfare is increasingly gaining ground in Chinese research, although the idea continues to be largely alien to other countries. Dissipative warfare is a form of intelligentized warfare based on deterrence and minimum bloodshed, but resulting in political, economic and diplomatic strangulation. It has developed out of the traditional concept of attritional warfare, where the side that can sustain its conversion of material resources (such as industrial capacity, population, resources etc.) into battlefield advantages will be the one that is ultimately victorious. With the rise of AI, these

traditional factors which constitute national power now largely stand discounted, for at least two key reasons:

First, the foundation of warfare has shifted from the conventional material resources of national power to other domains such as information flows, AI, and other network structures. Further, even the bases of war have moved from traditional domains like air, sea and land to integrated domains, in which information becomes key.

Second, the target of warfare has shifted from destruction of adversary's physical capacities in the form of soldiers or battlefield weapons or factories to more effectively targeting their warfighting capabilities. This means instead of physical destruction, the adversary would be in a state of 'asymmetric paralysis', a state of dysfunction which would be achieved within the enemy ranks with minimal cost.

Thus, dissipative warfare is based on a novel idea, made possible by recent technological advances, that victory in warfare will probably not belong to the side with the largest material stockpile of material resources but to the side which can maintain its own internal order while generating disruptions within the adversary's camps from inside, at a minimal cost. It is a form of warfare which not only does not entail bloodshed but can be continuously undertaken during either active wartime or peacetime. This idea perhaps signals the first of its kind comprehensive integration of AI in military and represents an advance over the sporadic attempts made till now. Given the rising debates over it, China will likely look at its military integration in the near future.

ISRAEL-HAMAS PEACE PLAN

The 20-point peace proposal put forward by the United

States for bringing an end to the Gaza war represents a significant turning point in the war. The proposal has already been accepted, in principle, by Israel, while Hamas has also conditionally accepted it. If implemented well, the proposal would not only bring an end to the war but also change the governance of Gaza in a way which would effectively prevent attacks such as the one perpetrated by Hamas on October 7th, 2023, from happening again. The following are some of the key features of the deal:

First, the very starting point of the deal hinges on an interesting stipulation – that within 72 hours of Israel publicly accepting the agreement, all hostages, alive or dead, will be returned to Israel. Only once the hostages are released will Israel then release up to 2000 Palestinians detained after October 7th, 2023. If Hamas fails to comply with this condition, Israel will continue the war and ‘finish the job.’

Second, the next significant part of the deal is that Hamas will have to disarm and surrender. If it surrenders, its members will be given a safe passage out of Gaza. Further, those Hamas members who commit to ‘peaceful co-existence’ and ‘decommission their weapons’ will be given amnesty. This has become a major sticking point for Hamas, as they have, till now, refused to decommission their weapons. Doing so would mean the effective end of Hamas.

Third, an ‘international stabilization force’, as an interim arrangement, will be established in Gaza by the US, Arab and other international partners. The ISF will mainly ensure stability in Gaza, by training the locals and by preventing any arms from entering. It will also regulate the flow of aid into Gaza. It will, thus, act as a law-and-order agency.

Fourth, the Israeli Defence Forces (IDF) will gradually withdraw in a phased manner, as the ISF establishes itself. However, the IDF will retain its presence in a ‘security perimeter’ in Gaza. This security perimeter likely implies a buffer zone that Israel will continue to maintain inside Gaza even in the future to ensure that attacks such as the one of October 7th, 2023, do not recur.

Fifth, for the future ‘governance’ of Gaza, a ‘temporary transitional governance’ arrangement will be established. It will be led by a ‘technocratic, apolitical Palestinian committee’, and will be responsible for day-to-day services. It will be supervised by the ‘Board of Peace’ headed by Trump himself and will include other members and leaders of countries. By heading this Board – and by also including former UK Prime Minister, Tony Blair, in it – Trump has appointed himself the in-charge of reconstruction in Gaza. The presence of Blair – whose organization had floated the early ‘Gaza riviera’ project idea – shows that the possibility of commercial development of Gaza to advance Trump’s business interests might become more concrete.

Sixth, uninterrupted flow of aid into Gaza will be permitted once the deal begins to be implemented. However, this flow of aid will be done without the interference of the United Nations and human rights organizations like the Red Crescent.

The overall peace proposal is, thus, a mixture of hard realism in favour of Israel and advances Trump’s potential commercial interests. Trump’s vast business interests in the Middle East are being headed by his son-in-law, Jared Kushner, and Gaza is also being viewed from this lens. Despite the presence of Trump’s private advantage – commercial as well as his quest

for a Noble Peace Prize – the overall deal does provide a clear framework for resolving this war. If followed through, it will effectively ensure that Hamas and other forms of terrorism will be permanently eliminated from Gaza, the Iranian presence will be completely wiped out, and Gaza itself will be transformed to an unrecognizable degree. It will also lead to the resumption of Israel's normalization of relations with Arab countries, which was started by Trump in his first term and has been aggressively pushed forward in the second term as well. All this works to Israel's advantage.

At the same time, it is also worth remembering that while the US is initiating the peace process, it was Israel itself which shaped the background for such a process to be initiated. For over two years, Israel has worked against all odds and against strident international ostracization to eliminate Hamas. It has permanently damaged Hamas, re-established complete control over West Bank, reduced Gaza to rubble (as it had promised after the 2023 attack), permanently handicapped Hezbollah, repelled the Houthis and asserted its power in Syria, Lebanon and Iran. Its twelve-day war with Iran showed that it is ready to absorb any number of losses to save its national prestige. Even though some European countries like France, Spain, Portugal and others as well as other major western countries like Britain and Canada sought to push Israel into a corner by recognizing Palestinian statehood, Israel continued its mission. Further, the country had already dismissed the United Nations long back. Thus, it was against all odds that Israel has been spiritedly fighting.

However, one of the major turning points in the war came with Israel's bombing of Hamas members in Doha, Qatar. The direct Israeli attacks in the heart of a major Arab power was

just the trigger that acted as a major shock therapy for Qatar and for other Arab states. Prior to that, Qatar had always been notoriously infamous for shielding terrorists, not just from Hamas, but also from anti-Arab Muslim Brotherhood. It was also famous for playing a balancing game between Iran and other Arab countries. Due to its extensive contacts with Iran and its terrorists as well as with other Sunni Arab states and due to its vast gas and oil wealth, Qatar had imagined itself to be quite powerful. In recent times, it had been the major intermediary hosting talks between Israel and Hamas for over a year, and during Trump's visit had lavishly bestowed gifts on him.

Israeli strikes on Qatar fulfilled the job of shattering the Qatari glasshouse, which even the collective Arab blockade of Qatar in 2017 could not achieve. The unprecedented strikes in Qatar were accompanied by Israel's message that it would pursue its enemies inside any country that shielded them. Israel had conveyed this message to China as well, since it is another country that, like Russia, became famous for supporting Hamas and for bringing together the Palestinian factions on a common ground. Israeli strikes on Qatar were the trigger that brought Hamas to the table and laid a fertile ground for Trump's peace plan to get through. Otherwise, it would have fallen flat like numerous other peace deals over the last two years. After the strikes, Qatar was the one that pressurized Hamas to accept the deal and threatened to withdraw protection if it did not do so, which the terrorist entity is now doing.

Israel's approach is, perhaps, the most instructive illustration of the fact that peace can only be built on foundations of strength. In today's world of wars, renewed militarization and rise of terrorists as state proxies, Israel lays out a path to show the real meaning of victory and strength.

SAUDI-PAKISTAN DEFENCE PACT

In recent times, thanks to Trump's personal interventions in a complete contravention of the American foreign policy over the last two decades, Pakistan has regained its prime importance as the world's broker. While Trump began to explicitly court Pakistan after the latter buttressed his claims of bringing about a ceasefire between India and Pakistan and recommended his name for the Nobel Peace Prize, his interests in Pakistan saw a simultaneous deepening due to his family business's expansion in the domain of cryptocurrency – until now a domain of shady financial practices in which Pakistan became an early player. The relationship received a further fillip when Pakistan pledged its critical mineral resource wealth to Trump – another area where the US is aggressively expanding in a bid to counter China's technological influence.

Besides the new growing bonhomie between US and Pakistan, the latter already has a close military relationship with China and is aggressively seeking to expand its relations with Russia. Its relationship with other Muslim countries, such as Saudi Arabia, UAE and Turkey, were already deeply interwoven since its formation. More recently, Israel's attack on Qatar and the immense insecurity it generated among Arab countries led to a quick signing of a mutual defence pact between Saudi Arabia and Pakistan. The pact is significant because it states that an attack on any one of these countries will be considered an attack on the other. The unsaid implication is that the pact obligates each of these countries to come to the other's defence through military means. This may have several implications:

First, it instantly raises Pakistan's already rising profile in

the region. Since Pakistan is the only Muslim country with nuclear capabilities, this development signals an extension of Pakistan's nuclear umbrella over Saudi Arabia, as stated by Pakistan's foreign minister. In the wake of Israel's attack on a key Arab country which was not involved in the war, the pact becomes a way for Saudi Arabia to secure itself through an extended nuclear deterrent. It is also directed against Iran – Saudi Arabia's key adversary in the region – which has not abandoned its quest for nuclear weapons and has the technology to realize it.

Second, it brings back into focus the idea of an Islamic NATO, especially if the possibility of the extension of Pakistan's nuclear deterrent to other Muslim countries becomes more concrete. If the peace deal with Israel follows through, this possibility may be minimized, but there is no certainty. In a world of rising insecurity, increasing western intervention in the Arab world, rising Israeli power and sharpening religious conflict, such a possibility does exist. If an Islamic NATO materializes even among some Muslim countries, it will signal a formidable unity, underpinned by Pakistani nuclear umbrella, and might pit the Muslim world more concretely against the non-Muslim adversaries.

Finally, the pact will affect India, but not to a very great extent. One of the major advantages here is that India-Pakistan conflict is more of a regional problem which has been easy to contain, due to lack of desire on part of both countries to escalate as well as the swift backdoor pacification by other countries. India has never initiated an attack against Pakistan, and its only red line is terrorism. Since Pakistan is now too deeply intertwined with both US and China, it no longer has the independence to act irresponsibly and risk another war.

Other Muslim countries, particularly Saudi Arabia, UAE and Qatar, have also expanded relations with India swiftly over the past decade. These relations are no longer limited to the passive domain of migration, but now also have active technological and economic dimensions. Any petty misadventures by Pakistan would be sought to be checked even by the Muslim countries.

Despite these present circumstances, India would perhaps have already recognized how fast geopolitical realities on the ground change these days. One factor alone can change the entire scenario rapidly. Therefore, India would do well to not rely on existing factors, and should assume the worst possibilities to equip itself accordingly.

THE CHANGING CONTOURS OF CLIMATE AND ENVIRONMENT

Environmental degradation has become one of the most defining features of the present era of development. The new patterns of environmental degradation are no longer a localized phenomenon with local causes and remedies but are increasingly a part of the chain of interconnected global events represented through the common challenge of climate change. The latter has become a major driving cause behind environmental depletions and disasters that are experienced even locally. Therefore, to think that what happens within a country remains within that country is a myth busted by climate change. This goes even more for the increasingly sophisticated developmental systems fuelled by new technologies.

Unmitigated extractivism and exploitation of the environment in the name of development has brought us to a point where a restoration of our past natural and pristine environment is no longer an option. Even the panaceas that we offer to rectify the present state of environmental degradation, paradoxically, end up precipitating even worse forms of environmental distress. As a result of this vicious cycle, humanity now appears to have reached a point of no return, with the changes in our environment likely to lead to such deep-rooted and structural changes in our biological systems and ecosystems as are already visible through rising disasters, species mutations and extinctions, proliferation of pandemics and even behavioural psychological changes. The twin challenges of climate change and threats to biodiversity embody these numerous localized as well as global environmental problems facing individual countries and the world.

With the changing nature of new challenges facing the world, the question of environment is now facing renewed pressure from at least three major arenas. These include:

First, rising geopolitical competition between countries, which has led to a re-orientation of priorities, with environment now nearly occupying the bottom rung of national priorities. This is primarily driven by the increasing incidence of conflicts and wars, which has resulted in the necessity of expanding the defence industrial base of the countries. Such an expansion of defence industrialization and rearmament comes in the form of a trade-off with the environment.

Second, the rise of new technologies, especially Artificial Intelligence (AI) systems, which consume huge troves of energy, thereby compounding environmental pressures. Further, the rise of new technologies has also begun to frame the debates on energy transition, with sustainability taking a backseat to technological fixes for energy transition.

Third, the ever-present normative framework of ‘development’, which has provided such a moralistic justification for environmental exploitation as to completely shut countries to all alternative avenues of logic. Often, these moralistic justifications are couched in the vocabulary of poverty alleviation and economic growth and are meant to appeal to domestic vote banks. Here also, there is a visible tendency for countries to perceive environmental action as a zero-sum game in which environmental action by one country is perceived as obstructing its ‘development’ and leading to competitive economic gains for the other countries.

Given the rise of these multifaceted challenges and the environmental modifications they will lead to, no country stands

to be as vulnerable to the changing environment as India. Presently, India occupies a uniquely disadvantaged position between two extremes, as it is one of the most vulnerable countries to climate change, and, also because of its defence compulsions in the context of changing geopolitics which necessitate that the country develops the requisite technology and defence industrial base to orient itself in a changing world. One thing that is clear is that the country is presently ill-equipped to resolve the basic contradiction between these two extremes. It is only by rising to a higher mechanism and mode of action, which is influenced by a deeper, spiritual perspective that the country would be able to navigate the increasingly severe challenges before itself.

THE CHANGING CONTOURS OF GLOBAL ENVIRONMENTAL DEGRADATION: CLIMATE CHANGE AS AN AMALGAMATION OF MAJOR ENVIRONMENTAL CRISES

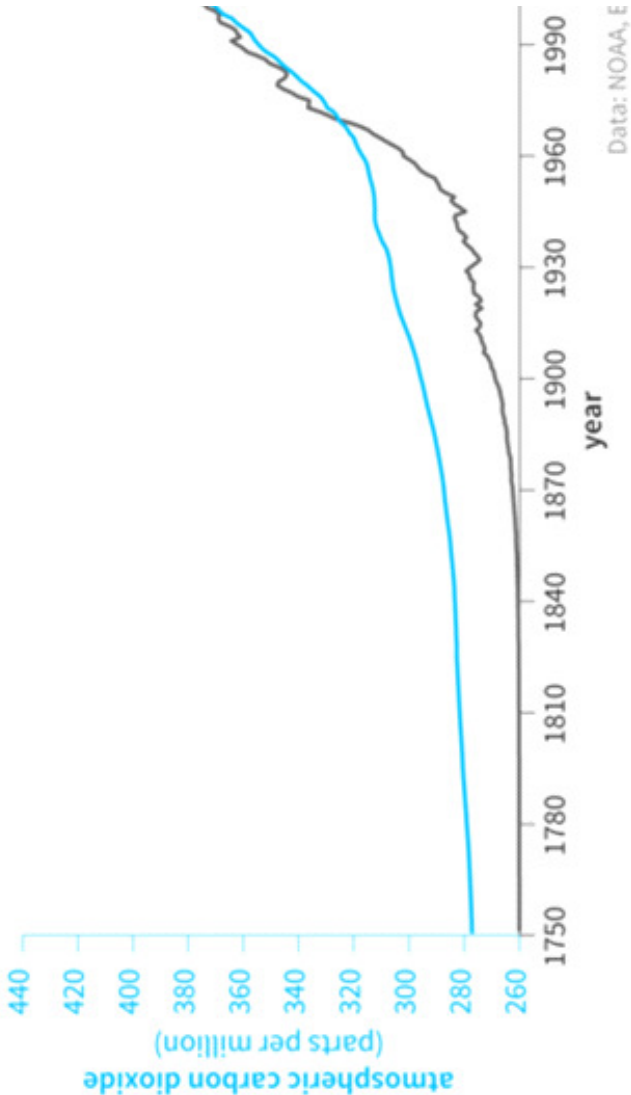
Climate change refers to the significant changes in the earth's weather patterns over a sustained period, precipitating in changes in its temperature, humidity, rainfall and causing other extreme weather events. In the context of our modern civilization, these changes have assumed a primarily anthropogenic form, that is, they have been driven by human activities especially since the rise of the Industrial Revolution in the mid-19th century. The quest for energy – an integral component of the modern industry – leading to the burning of fossil fuels has resulted in such a significant increase in Greenhouse Gas (GHG) emissions as to precipitate in sustained global warming visible through a rise in the average long-term surface temperature of the earth, leading to multifarious current and projected impacts.

Crossing New Thresholds

According to the latest estimates of the World Meteorological Organization (WMO), the global average temperature for the most recent 10-year period, from 2014 to 2023, is estimated to be the warmest 10-year period on record, at around 1.2°C above the 1850-1900 average (UN, 2025). Furthermore, nearly every year, new temperature records are being set, visible through the breaches being recorded. In 2024, for the first time, the planet breached the 1.5°C temperature threshold, above the pre-industrial levels, set by global scientists and policymakers, as a red line for avoiding the dangerous impacts of climate change (WMO, 2025). What is even more alarming is the record that the temperature breach of 1.5°C above pre-industrial levels has sustained through sixteen consecutive months in 2023-2024, making these two years the warmest on record (Sirur, 2024).

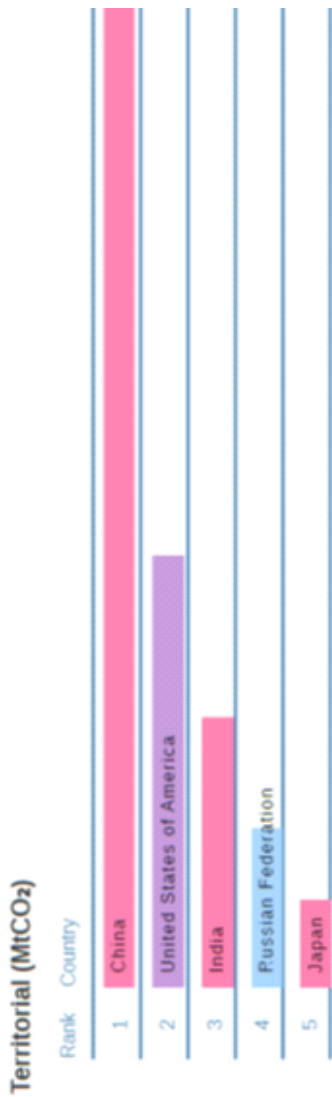
This unprecedented increase in the global average temperature has been significantly caused by the rise in global GHG emissions, especially carbon dioxide (CO₂) emissions. As of 2023, CO₂ emissions were around 60% higher than they were in 1990 (Gabric, 2023). Furthermore, the atmospheric concentration of carbon dioxide is approximately 424 parts per million (ppm), which is nearly 50% higher than the pre-industrial average of about 280 ppm (NOAA, 2025; Lindsey, 2025). This increase in the CO₂ concentration in the atmosphere has been mainly driven by the rise in CO₂ emissions, primarily from fossil fuels. According to the data by the National Oceanic and Atmospheric Administration (NOAA), since the middle of the 20th century, there has been a consistent rise in average annual CO₂ emissions, with emissions rising from nearly 11 billion tons of carbon dioxide per year in the 1960s to an estimated 37.4 billion tons in 2024 (Lindsey, 2025).

Global carbon dioxide emissions and atmospheric carbon dioxide (1751)



The graph above shows how the amount of carbon dioxide in the atmosphere has increased along with human emissions since the start of the Industrial Revolution in 1750. Emissions rose slowly to about 5 gigatons¹ in the mid-20th century before rapidly increasing to more than 35 billion tons per year by the end of the century.

Furthermore, the rise in emissions has been driven largely by fossil fuel use, with China, United States, and India leading in these emissions. As of 2023, fossil fuel emissions accounted for about 37,792 MtCO₂ equivalent globally.



Source: Global Carbon Atlas (2023)

¹ 1 *gigaton* is equivalent to 1 billion metric tons per year.

Out of this, China accounted for the largest share of fossil fuel emissions at 11,903 MtCO₂ equivalent, followed by the United States at 4911 MtCO₂ equivalent, followed by India at 3062 MtCO₂ equivalent (Global Carbon Atlas, 2023). In terms of total primary energy consumption from fossil fuels, as of 2024, India accounted for the largest share at 89.6%, followed by Japan (82.9%), United States (80.3%) and China (80.2%) (Ritchie & Rosado, 2024). Furthermore, in terms of share of fossil fuels in electricity generation, South Africa accounts for the largest share at 83.3%, followed by India (77.5%), Australia (64.5%) and China (61.9%). The share of fossil fuels in electricity generation in the US is about 58.1% (Ritchie & Rosado, 2024). Globally also, fossil fuels continue to dominate global electricity production, accounting for nearly 60% of the production (Gabric, 2023).

What is even more alarming is that the emissions trajectory shows little sign of declining. The projections by the UN, for 2025, indicate that even if countries implement their latest climate commitments, global GHG emissions in 2025 could reach around 53 gigatons of carbon dioxide equivalent (Gt CO₂e), 54 percent higher than in 1990 and at a similar level to the 2019 emissions level (Krishnamurthy, 2024). This estimate excludes emissions from land use, land-use change and forestry (LULUCF). Even more dire is the UN assessment that even if all the national commitments made by individual countries were implemented by 2030, global mean temperatures could still rise between 2.1°C and 2.8°C by 2100. It is unlikely that countries would be able to meet even their existing national climate commitments, as the nature of commitments as well as their integration into national implementation frameworks continues to be patchy, with fewer than half of countries having

integrated their NDC targets and policies into national legislation (Krishnamurthy, 2024).

Current and Projected Impacts

With the increase in the frequency of the breaches of safe temperature thresholds, the present and projected environmental and other impacts of climate change are set to worsen.

In terms of present and future impacts, we can witness key environmental impacts in the form of:

- *Rising and increasingly dire heatwaves:* The rising incidence of heatwaves has become a particularly acute current impact of a changing climate. In July 2023, the planet broke its record for the hottest day, four days in a row. There has also been a rise in mortality associated with the heatwaves, with over 178,000 global deaths associated with the 2023 heatwave (Hundessa, et al., 2025). Moreover, more than half of the (54.29%) heatwave related deaths have been attributed to climate change. Increasingly, due to heatwaves, the urban heat island effect is being witnessed as a major factor in densely populated cities, including those of India. Under the effects of the urban heat island, cities are becoming hotter due to urbanization, loss of vegetation, and increased concrete development, creating ‘urban heat islands.’

- *Melting of ice sheets:* The loss of ice sheets in Greenland and Antarctica has become a significant precursor to inevitable sea level rise. These ice sheets store about 68% of the planet’s freshwater resources. According to estimates, for every centimeter of sea level rise, around six million people around the planet are exposed to coastal flooding. Between

1972 and 2023, the Greenland Ice Sheet lost nearly 6,214 Gt of ice, contributing to almost 17.3 mm to global average sea level rise over this period, and during the same period, the Antarctic Ice Sheet lost nearly 4,817 Gt of ice, contributing to a total of nearly 13.4 mm of global mean sea level rise (European Commission, 2025). Furthermore, the decadal average loss from the world's glaciers quintupled over the past few decades, from the equivalent of 6.7 inches of liquid water in the 1980s, to 18 inches in the 1990s, to 20 inches in the 2000s, to 33 inches for 2010-2018 (NOAA, 2023).

- *Rise in average sea level:* Global mean sea level has risen by an average of 3.7 mm/year since 1999, representing a total increase of 9.38 cm over the past 25 years. Out of this, 30% of the global mean sea level rise can be attributed to ocean thermal expansion and the remaining contribution mainly comes from the melting of glaciers and polar ice sheets. Furthermore, the sea level rise more than doubled by 2022 compared to the 1993 levels, visible through the fact that the rate of rise was 0.20 cm/year in 1993 but reached 0.44 cm/year by 2022. In 2023, global mean sea level was 101.4 millimeters (3.99 inches) above 1993 levels, making it the highest annual average in the satellite record (NOAA, 2023).

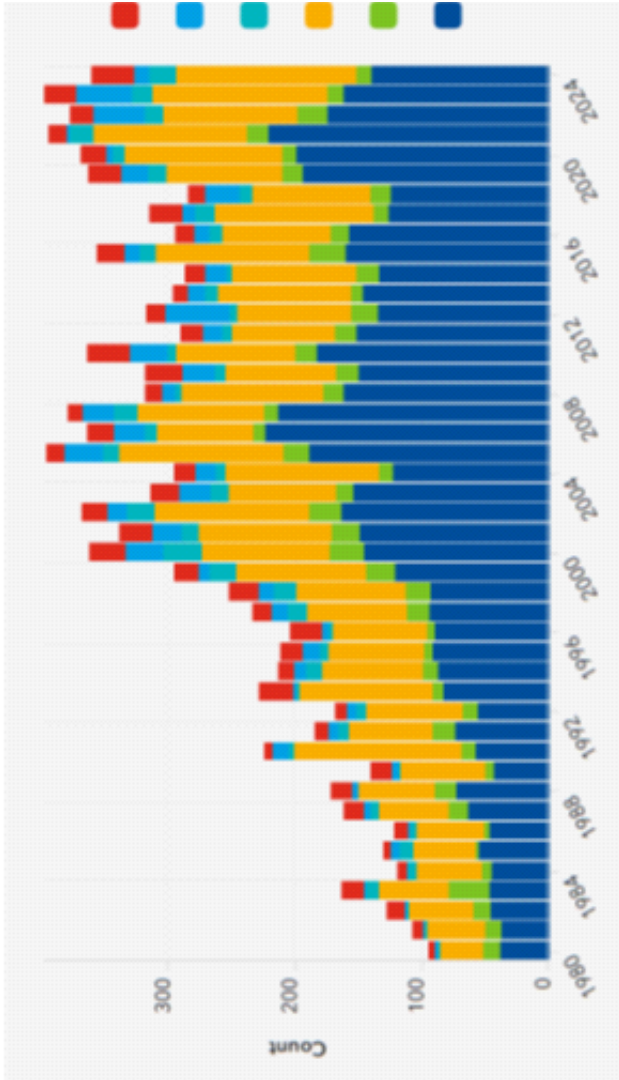
- *Water scarcity, especially in developing countries:* Water scarcity due to climate impacts is yet another acute crisis that is now facing the world and is set to intensify. With only 0.5% of water on Earth being useable in the form of freshwater, the accelerating dangers of climate change to freshwater supply have become a crisis. Over the past 20 years, terrestrial water storage – including soil moisture, snow and ice – has dropped at a rate of 1 cm per year (WMO, 2021). This will not only compromise global water security but also affect different

regions of the world disproportionately. Presently, nearly two-thirds of the global population experience severe water scarcity during at least one month of the year (Mekonnen & Hoekstra, 2016). Global projections for 2050 estimate that by that year, nearly three-quarters of the world's population could face drought, and the number of people in severely water-scarce areas may grow from 2 billion to over 3 billion (UN WATER, 2025).

- *Rise in air pollution in several cities of the Global South:* The link between climate change and air pollution is becoming increasingly apparent. Rising global temperatures and carbon dioxide levels are linked to increases in atmospheric stagnation patterns, ground-level ozone and fine particulate matter (PM2.5). PM2.5 is one of the major drivers of air pollution and can significantly shape health outcomes, with millions of premature deaths being recorded annually because of rise in air pollution. Climate change can also lead to weather patterns that cause “atmospheric stagnation,” characterized by weak winds and a lack of precipitation, which traps and accumulates air pollutants (Zhou et al., 2024).

- *Rise in the incidence and frequency of natural disasters:* There has been a rise in the frequency of natural disasters such as wildfires, droughts, extreme rainfall and earthquakes.

Frequency of Natural Disasters



Source: EM-DAT, CRED / UCLouvain,

- *Security impacts:* These are visible, both, in terms of how climate change and environmental factors have come to pose a threat to national security as well as to human security.

In terms of threats to national security, climate change has become a major trigger for migration. As the world witnesses an increase in climate-induced migration, people move away from areas affected by climate impacts towards other destinations. The Syrian civil war, which started in 2015, and led to an unprecedented influx of refugees into Europe, was also linked to climate stress in Syria. In the subsequent years, this pattern has become more apparent.

According to the International Displacement Monitoring Centre (IDMC), in 2022, disasters triggered a record 32.6 million internal displacements, of which 98 percent were caused by weather-related hazards such as floods, storms, wildfires and droughts. Furthermore, 70 percent of all refugees, including those affected by climate change, live in countries neighbouring their own (Siegfried, 2023). For a country like India, this becomes a serious threat multiplier in the context of the already persistent decades-old crisis of illegal migration from the neighbouring Bangladesh.

Climate change can also become a major conflict multiplier, thereby further threatening internal security. For example, in Burkina Faso, some of the worst violence and displacement in recent years has taken place in the poorest, most drought-affected areas where armed groups have exploited tensions over shrinking sources of water and arable land (Siegfried, 2023). Similar patterns of natural resource conflicts – made worse by climate and environmental factors – can be observed in areas like Sub-Saharan Africa (See, Opdyke, & Banki, 2025).

In terms of human security, climate change and environmental factors have already begun to have an impact on critical sectors like agriculture, which affect food security, as well as overall economic impacts. It is already reducing

agricultural yields and productivity as well as the nutritional quality of the crops. In countries like India, which are dependent on rainfed crops like wheat and rice, to meet their food security requirements, this will have major adverse impacts, due to increasingly erratic monsoon patterns and rising water scarcity. In recent years, the Indian government has sought to explore alternatives like bringing millets back (as they consume less water and are also healthy) as well as conducting alternate farming experiments on a small-scale. However, these are not sufficient to cater to the food security, at scale, of a billion-plus population.

HOW HUMAN SELFISHNESS PRECIPITATES THE WORLD'S LOSS: THE POLITICS OF CLIMATE CHANGE

Even as the impacts of climate change accelerate at an unprecedented pace, the efforts being made to address them are progressively lagging. This is mainly happening on two counts viz. intergovernmental cooperation and the prioritization of technological solutions.

Intergovernmental Cooperation: When Cooperation Becomes a Hurdle:

The key body governing climate change body at the global level is the United Nations Framework Convention on Climate Change (UNFCCC). It was formed as an outcome of the 1992 Rio Declaration, along with two other conventions viz. the convention of biological diversity and the convention on desertification. Together these conventions represented the new rise in environmental awareness that was spreading across the world.

Prior to these conventions, environmental issues were viewed in a localized, country-specific manner, with a clear-cut cause-effect relationship. For example, river pollution could be easily attributed to the chemicals and waste that was being discharged from industries. Or, air pollution could be attributed to industrial activity, rise in dust or vehicular pollution in a particular area. It was only in 1972, at the Stockholm Conference, that environmental issues were discussed as a global challenge for the first time. By the late 1970s and 1980s, the threat of climate change had gained ascendancy, leading to the formation of the Intergovernmental Panel on Climate Change (IPCC) in 1988, and culminating in the formation of the UNFCCC in 1992.

From the very beginning, the UNFCCC was held hostage to politics and economics. From an economic perspective, climate change was viewed as a problem pertaining to the ‘public bad’ or externality of GHG emissions (in particular, carbon emissions) which had to be ‘optimally’ dealt with by apportioning the costs of climate action between various countries. In other words, climate change and environmental issues have always been viewed from a typical free-rider perspective in which every country desists from contributing fully to the cost of climate action, based on the assumption that other countries will free-ride and get benefit of an improved climate without bearing the required costs. Such a rationalization is to be expected if environmental issues are viewed purely from an economic perspective as a mere externality – rather than as a life-threatening challenge whose remedy would result in benefits for everyone – in an otherwise ‘progressive’ arc of development.

From this economic framing of climate change and environment globally, the political process that follows becomes quite evident. Politically, the UNFCCC process has been marked by endless negotiations and bargaining over who – between developed and developing countries – needs to bear the major cost of climate mitigation and adaptation. The developing countries have argued that developed countries are responsible for the historical cumulative emissions that have depleted the atmosphere’s carbon sinks and that their development has come through the means of industrialization and colonization at the expense of developing countries.

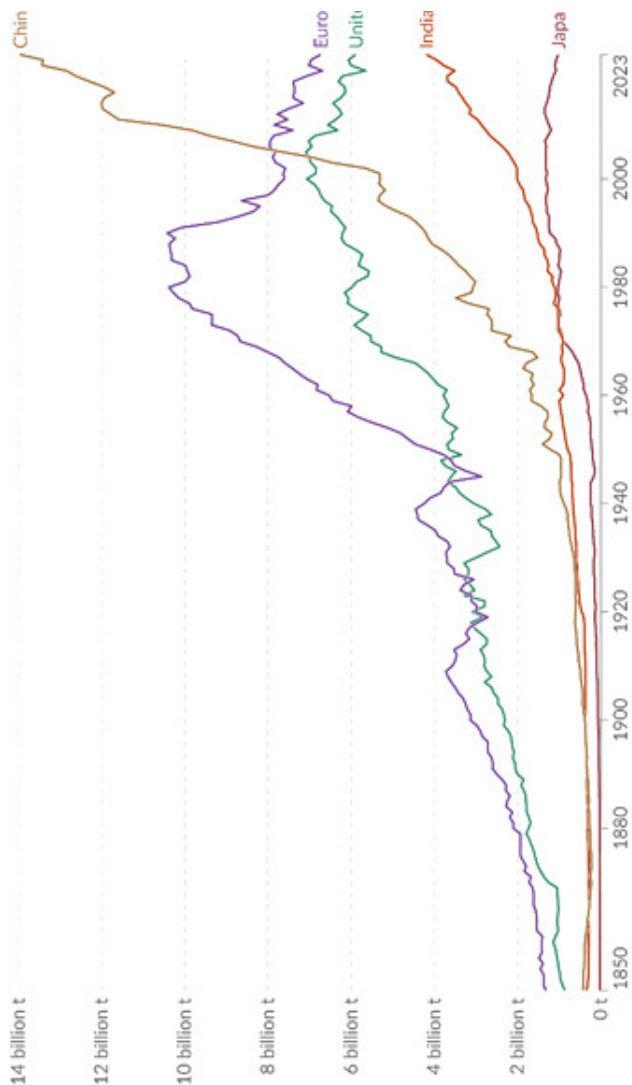
For perspective, humanity has pumped around 2,500 billion tonnes of CO₂ (GtCO₂) into the atmosphere since 1850, leaving less than 500 GtCO₂ of remaining carbon budget to stay below 1.5°C of warming. Thus, by the end of 2021, the world had collectively burned through 86% of the carbon budget for a 50 percent probability of staying below 1.5°C, or 89% of the budget for a two-thirds likelihood (Evans, 2021).

Total, per capita and historical emissions of selected countries and regions:

	Total GHG emissions in 2023	Change in total GHG emissions, 2022–2023	Per capita GHG emissions in 2023
	MtCO ₂ e (% of total)	%	tCO ₂ e/capita
China	16,000 (30)	+5.2	11
United States of America	5,970 (11)	-1.4	18
India	4,140 (8)	+6.1	2.9
European Union	3,230 (6)	-7.5	7.3
Russian Federation	2,660 (5)	+2	19
Brazil	1,300 (2)	+0.1	6.0
African Union	3,190 (6)	+0.7	2.2
Least developed countries (45 countries)	1,720 (3)	+1.2	1.5
G20 (excl. African Union)	40,900 (77)	+1.8	8.3

Greenhouse gas emissions

Greenhouse gas emissions include carbon dioxide, methane and nitrous oxide from all sources, including land-use change. They are measured in tonnes of carbon dioxide-equivalents over a 100-year timescale.



Data source: Jones et al. (2024)

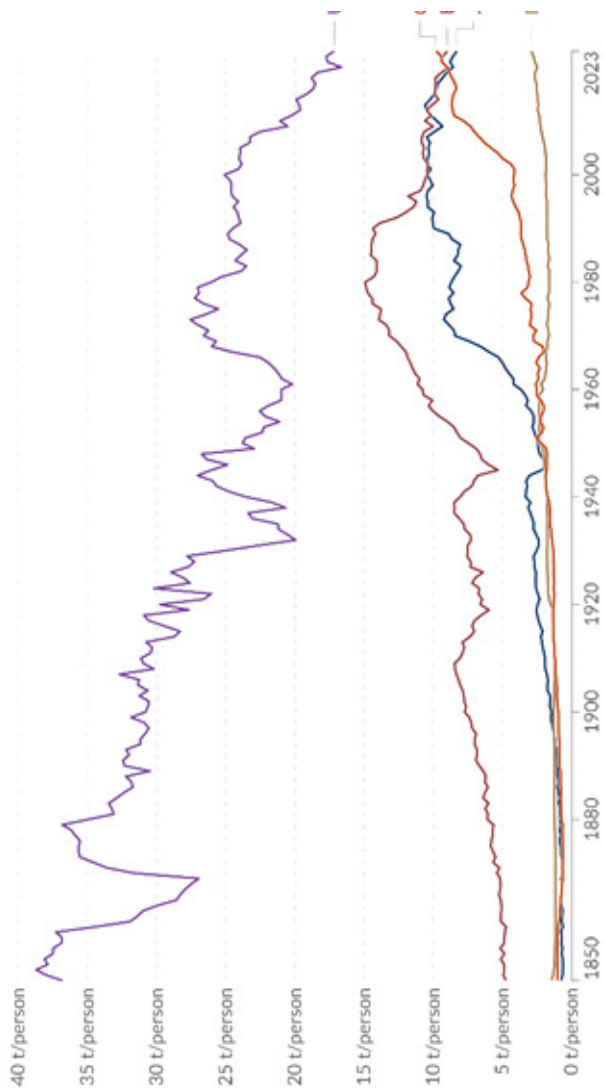
Note: Land-use change emissions can be negative.

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Developed countries have historically cornered a major share of the global carbon space, and their emissions peaked quite late after having been on a sharply increasing trajectory since 1850. For the US, emissions peaked as late as 2007 before beginning to decline. For the EU, emissions peaked in 1990 before beginning a decisive decline. Furthermore, even in terms of per capita emissions, developed countries continue to lead, with Australia and Canada being among the top per capita emitters. Per capita emissions, denoting the emissions per person, signify the extent to which the population of a country has access to energy.

Per capita greenhouse gas emissions

Greenhouse gas emissions include carbon dioxide, methane and nitrous oxide from all sources, including land-use change. They are measured in tonnes of carbon dioxide-equivalents over a 100-year timescale.



Data source: Jones et al. (2024); Population based on various sources (2024)

Note: Land-use change emissions can be negative.

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This historical and per capita emissions trajectory, built by the developed countries over nearly two centuries of industrialization, extractive development and colonialism, has led to their cornering the major global carbon space. Developing countries have sought to deploy this argument to advance their contention that, as a result of the developed countries' trajectory, very little atmospheric carbon space is left to the developing countries to emit and develop similarly, and that, therefore, developed countries should bear the cost of climate mitigation and adaptation by curtailing their emissions and by providing the necessary finance and technology to developing countries to deal with climate change. Developing countries have termed this as environmental and climate 'justice.'

This deep-rooted perspective which has guided the working of the UNFCCC since its inception – and is also reflected in the form of North-South divide in other environmental conventions such as the convention on biological diversity – and has formed the basis of negotiations and decisions, is fundamentally flawed for at least four reasons.

First, the present dominant understanding of environment and climate change assumes a fundamental contradiction between development and environmental protection and assumes that developmental trajectories should somehow be harmonized with environmental objectives, through measures like 'sustainable development' – that there is friction but there is always a technological remedy to make these two areas co-exist. This may act as a 'feel good' factor and allow countries to continue to embark on an environmentally destructive path in the name of development, but it obscures the fact that there is no space left to develop and that development has become an enterprise which, through ecological degradation, has become not only an environmentally destructive but also a self-destructive mission.

Second, the present system of environmental obligations based on the unjustified assumption that developing countries will necessarily follow the same ‘extractive’ path of development that was followed by the developed countries to modernize themselves. It is paradoxical that while on the one hand, the developing countries criticize the developed countries for following an extractive and destructive path of development which has caused environmental degradation and culminated in climate change, on the other hand, the developing countries claim that ‘justice’ lies in imitating the same development trajectory.

Third, following from the principle of historical responsibility, the global climate regime is premised on two other principles viz. common but differentiated responsibilities (CBDR)² and the principle of equity. These principles, especially the CBDR as a central principle, form the basis on which technology transfer and finance flow from developed to developing countries has been justified. Despite a piecemeal and highly dismal track record of developed countries in this regard, it is curious that the developing countries continue to pay lip service to these principles, continue to repose their faith in the ineffective mechanisms of the climate regime, and worst of all, continue to make their own climate action conditional on the flow of finance from developed countries.

Such an approach could be justified on the part of least developed countries that do not possess the necessary

² The CBDR principle is interpreted to mean that while all countries have common responsibility to deal with climate change, developed countries, based on their advanced capacities and historical responsibility for emissions, have more responsibilities. That is what is implied by differentiated responsibilities.

resources but is increasingly appearing obstructionist on the part of countries like India, China and Brazil. On the one hand, India and China claim leadership of the Global South and donate substantially to other less developed countries and have built large infrastructure projects and investments in these countries. On the other hand, India and China claim that climate commitments would be conditional on legitimate financial flows from developed countries (which, through decades, have been merely paltry and reluctant outflows). When all this is justified in the name of ‘climate justice’, the double standards of all countries alike become apparent.

There has now been a shift in this traditional position, led by China. Most recently, ahead of the 30th Conference of Parties (COP30) in Brazil, China, for the first time, committed to direct emissions reduction, giving a clear target of reducing emissions by 7% to 10% by 2035 compared to peak level emissions.³ This is a welcome break from merely committing to reduce emissions intensity (emissions per unit of GDP) and focuses more clearly on reducing absolute emissions.⁴ This is a much needed change in the existing discourse, as the labels of ‘developing country’ and ‘climate justice’ are increasingly becoming a justification to avoid responsibility for environmental damage, knowing that the core climate justice principles of the UNFCCC will not yield anything on the part of the developed countries, even as developing countries, being more vulnerable to environmental damage, are set to face increasingly worse forms of environmental disasters.

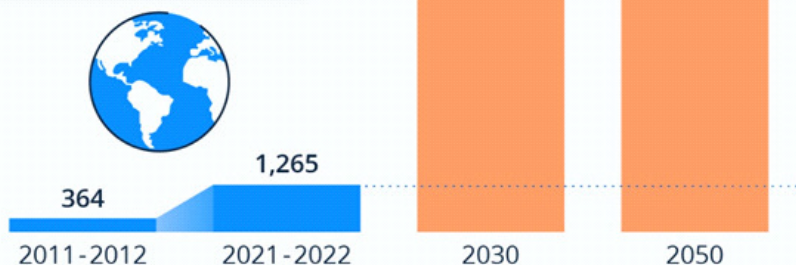
³ China is expected to peak emissions around 2030.

⁴ In 2024, China’s absolute emissions stood at around 15.8 billion tonnes of CO2 equivalent. This was followed by US, at a distant second, whose emissions stood at 6 billion tonnes of CO2 equivalent. India’s absolute emissions stood at about 3 billion tonnes of CO2 equivalent.

The Yawning Climate Financing Gap

Global tracked climate finance and average estimated annual needs through 2050 (in billion U.S. dollars)

- Climate finance
- Estimated needs in the average scenario*



* Based on an average scenario for a 1.5°C pathway
Source: WMO|State of the Global Climate 2023



statista

Finally, major decisions on climate change have been taken hostage by the global political process at the UNFCCC. Not only has this forum become nearly as inefficient and politicized as the rest of the intergovernmental bodies of the United Nations (UN), but it has become a forum for mainly empty signalling and vacuous self-commendation by individual countries, which masks the real and more dismal track record of countries in meeting their environmental obligations. Furthermore, the way that countries understand environmental obligations is deliberately narrow at the UNFCCC.

Environmental obligations are equated to meeting a prescribed list of targets. Worse still, these targets are self-prescribed or voluntary. This target-based regime masks the increasingly dismal and vulnerable environmental conditions in individual countries. This leads to a curious paradox, where, on paper, there would be much commendable progress shown by countries in meeting their climate change ‘targets’, but these same countries become increasingly vulnerable to worsening environmental impacts.

When Solutions Become Problems:

The solutions being advocated to deal with climate change, if seen closely, are no solutions at all, but merely instruments for signalling that something is being done, even as many of these solutions further compound the problem at hand. Presently, these solutions span two categories viz. increasing the ‘natural sinks’ that absorb excess carbon dioxide, and, implementing technological fixes in the form of carbon capture and storage or solar engineering and other such technological fixes.

Natural Sinks: A Disappearing Avenue

The natural sinks as a solution to climate change has severe limitations, as the two main sources of these sinks are forests and oceans, and the amount of carbon dioxide that we are adding to the atmosphere every year far outstrips the absorbing capacity of our natural sinks.

Land-Based Sinks and Forests

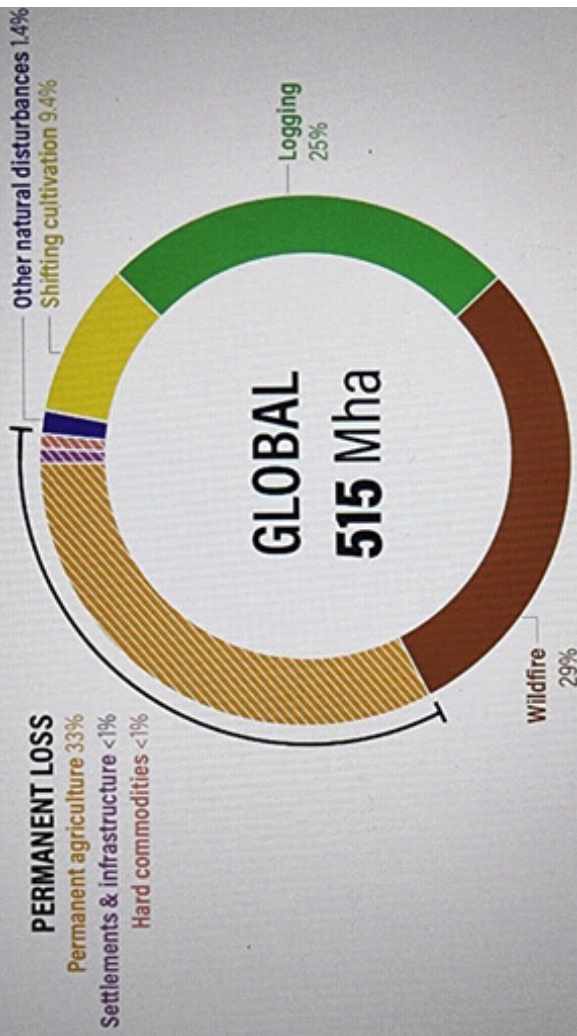
Till now, the widespread assumption was that land-based or terrestrial sinks (such as forests) – which absorb nearly a third of the carbon emitted – will decline gradually. However,

in 2023, an unprecedented collapse of natural carbon sinks occurred, when, for the first time, the earth's terrestrial ecosystem did not absorb any net carbon. The reasons for this were attributed to Canadian wildfires and the Amazon drought, linked to very high growth rate of carbon emissions especially from the wildfires (Nature, 2025). The persistence of hot, wet conditions in 2024 has also contributed to terrestrial carbon losses on a large scale.

Deforestation – despite the signing of international conventions, agreements and pledges – has continued to compromise the capacity of the earth's terrestrial sinks. According to available estimates, between 2001 and 2024, 34% of tree cover losses globally were likely the result of permanent land use change, implying that these trees will not grow back naturally. In tropical primary rainforests, this permanent tree cover loss nearly doubles to 61% (WRI, 2025).

34% of tree cover loss worldwide from 2001-2024 is likely permanent

Tree cover loss by dominant driver, millions of hectares (Mha)



Source: WRI/Google DeepMind, Sims et al. 2025.

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Deforestation could potentially lead to a compromise in the capacity of forests to store carbon stocks. This decline was already observed in the case of boreal and tropical intact forests (Pan, Birdsey, & Phillips, 2024). Furthermore, and ironically, while deforestation is accelerating in order to implement corporate projects, what is being done in the name of compensatory afforestation is merely replacing natural, thousands of years old diverse forests with commercial monoculture plantations which do not have the same carbon absorption potential as the forests that are cut down and contribute more to environmental problems such as drought, poor soil health and forest fires.⁵ They often absorb carbon more quickly, but do not have the long-term carbon storage capacity as older forests.

In India, they are being planted in many states, at scale, to show an increase in net forest cover. However, this increase masks the actual loss of forests that is taking place. According to data, in 70% of the projects between 2007 and 2017, plantations have been taken up on notified forest land but termed as “degraded” in official records (Nandi, 2018). This not only reveals the deep-rooted manipulation within the system of environmental accounting but also defeats the very purpose of afforestation. This is visible across the country. Parts of Central India have witnessed replacement of natural forests with teak plantations, thereby affecting species habitats in those areas. Even more worryingly, Northeast India has seen the expansion of palm oil plantations which is not only destroying local biodiversity but is also dangerous to long-term human health.

⁵ The planting of monoculture plantations and forests, without regard to the local ecology, is also one of the major reasons for forest fires.

Ocean Based Sinks

The status of oceanic sinks is also a cause of concern, as like forests, oceans too are severely limited natural sinks. In case of oceanic sink capacity, declines have now become evident. The carbon dioxide that is emitted easily dissolves into the oceans. When it reacts with water molecules, it produces carbonic acid which lowers the ocean's pH and correspondingly raises its acidity. An excess of carbon dioxide emissions has hampered the role of oceans as natural carbon sinks and has increased the process of ocean acidification. Since the start of the Industrial Revolution, the pH of the ocean's surface waters has dropped from 8.21 to 8.10 (Lindsey, 2025).

In 2023, a further surprising development was noted, as the year was marked by record high sea surface temperatures (SSTs) and a strong El Nino. Due to such high SSTs, the global non-polar ocean absorbed about 10% less CO₂ than expected (Müller, Gruber, & Schneuwly, 2025). This was especially seen in the North Atlantic where high ocean temperatures reduced the carbon dioxide solubility. This development has triggered new questions regarding the declining capacity of the planet's ocean sinks, as 2024 has witnessed the surpassing of even 2023 temperature records and the world's oceans have not cooled down (Columbia Climate School, 2025).

The Sham of Technological Fixes

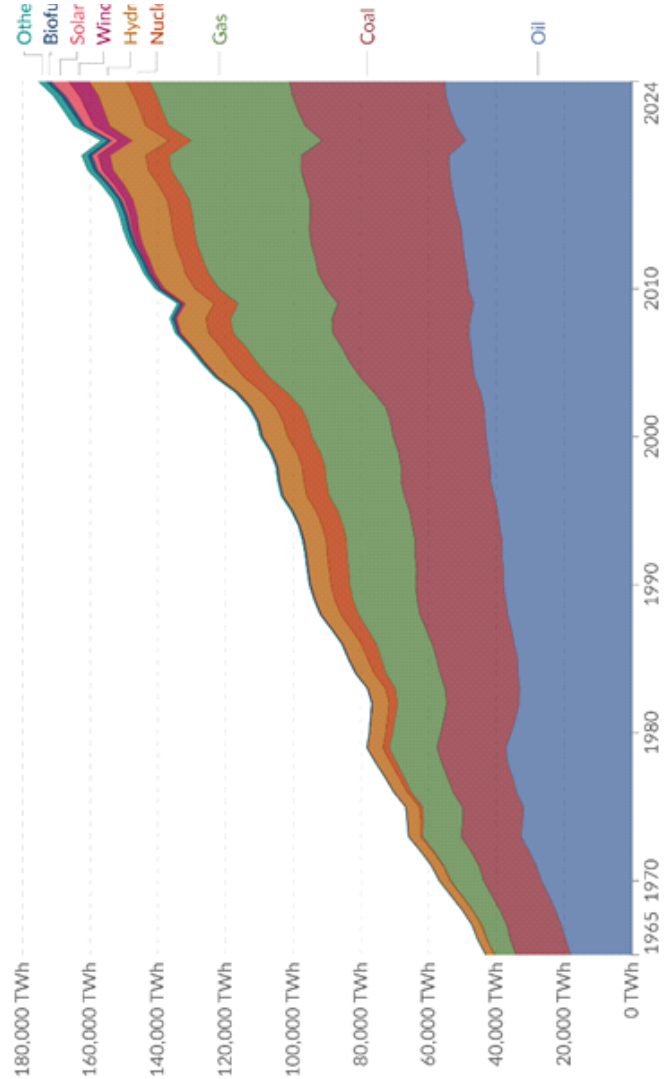
Even as the prospect of using natural sinks to counter the growing threat of climate change is itself decreasing, new technological fixes are being advocated as another potential solution. These may range from technologies which can be

easily deployed under the present conditions, such as renewables, to those that are difficult to deploy, such as carbon capture and storage. However, whatever be the nature of these technologies, one thing that has become amply clear in recent times is that new innovations as a result of technological growth cannot be a substitute for highly polluting systems. There are at least three major reasons for this:

First, it is borne out by recent trends, which show that even as several major countries are transitioning towards cleaner sources of energy, they continue to rely on polluting sources like fossil fuels as well. In a way, therefore, these cleaner sources of energy are not viewed by countries as a substitute to replace polluting sources, but as an addition or a supplement to them to meet their growing energy requirements.

Energy consumption by source, World

Measured in terms of primary energy using the substitution method.



Data source: Energy Institute - Statistical Review of World Energy (2025)

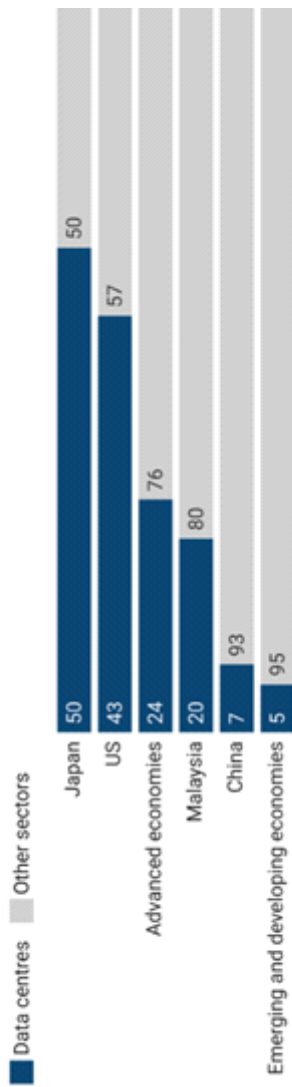
Note: "Other renewables" include geothermal, biomass, and waste energy.

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These expanding energy requirements are driven not only by the need to expand energy production and access to the people (as in the case of developing countries like India and, to an extent, China), but also to meet the needs of energy guzzling data centres, and Artificial Intelligence (AI) training labs on which the contemporary economy is increasingly basing itself. Presently, electricity consumption from data centers is estimated to amount to about 1.5% of global electricity consumption in 2024. It has grown at 12% per year over the last five years (IEA, 2025). By 2030, data centers and the energy-intensive demands of Artificial Intelligence (AI) are projected to more than double the global electricity consumption (AFP, 2025).

Data centres are expected to be major sources of electricity demand in some countries

Data-centre share of electricity demand growth 2024-2030, %



Source: IEA

Second, a question that has deliberately been kept on the backburner by today's decision-makers is the effectiveness and viability of these new and sophisticated technologies in addressing climate change. Often, there has been visible an increasing tendency on the part of decision makers and country leaders to make big promises based on deployment of technologies that cannot yet even be made practicable. In recent times, one big example of this is the discourse surrounding the 'net zero emissions' (NZE)⁶ commitments made by various countries as a route to fulfilling their climate pledges.

This refers to the stage where the emissions released will be roughly equivalent to the emissions absorbed or removed from the atmosphere, either through natural sinks (like planting trees) or through technological means. Since natural sinks are almost collapsing and depleting in their capacity, the world will have to rely more on large-scale, industrial-level technological methods. The most prominent examples include technologies like carbon capture and storage (CCS), use of green hydrogen in industrial processes and manufacturing, and solar geoengineering.

While the first two have proven to be too costly and unviable to be deployed at scale at the pace needed, the last one is based on conducting dangerous experimentation on the earth's atmosphere. It involves cooling the earth's atmosphere by reflecting more sunlight back into the space, by using radiation management techniques such as Stratospheric Aerosol Injection (SAI) which involves releasing aerosols, such as sulfur dioxide, into the stratosphere to mimic the cooling effect of

⁶ While European countries have pledged to reach this stage by roughly 2050, China has pledged to peak emissions by 2030 and achieve net zero by 2060. India has committed to reach net zero by 2070.

volcanic eruptions, and Marine Cloud Brightening (MCB) which involves spraying salt aerosols into marine clouds to increase their reflectivity. The risks range from entire ecosystem disruptions to a severe terminating effect which might cause a global disaster.

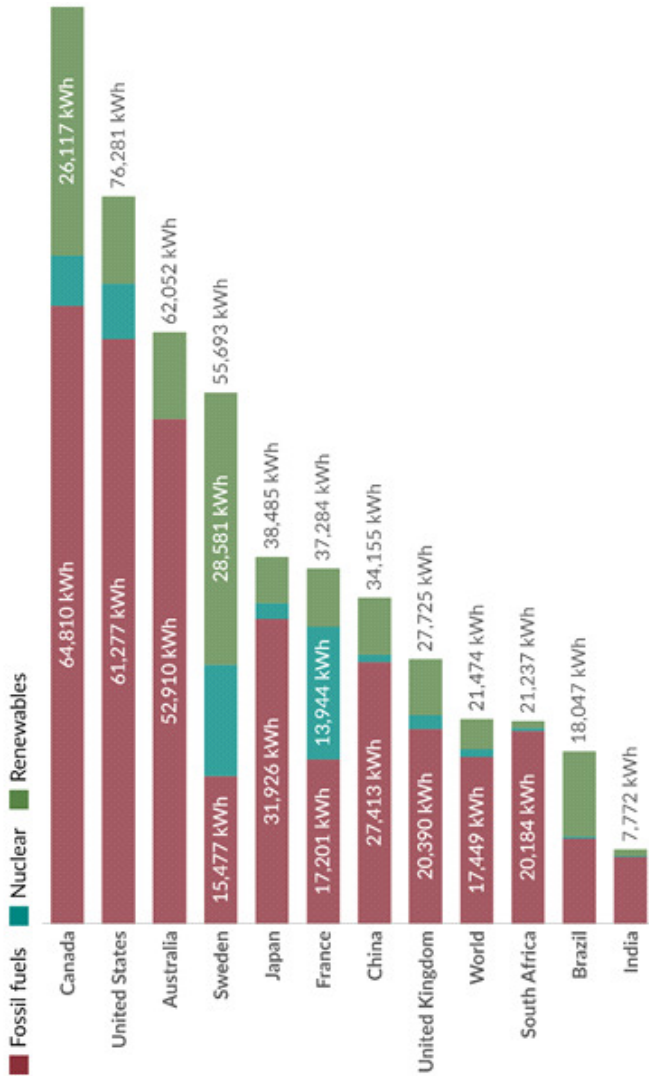
So far ethical divides among the world's scientists and leaders have prevented the large-scale use of such technologies, but the work on them continues.

Third, and more fundamentally, a big problem with techno-fixes is that, much like everything else, even these have come to be viewed as nothing more than a fruitful business model or a commercial enterprise to be exploited for profits. The extent to which the deployment of environmentally friendly technologies is deployed directly depends on the extent to which they are business friendly. This goes for all major technologies from renewable energy to battery storage to nuclear power. In the field of adaptation, climate smart agriculture and circular economy principles in manufacturing are being applied. Such widespread diffusion of numerous sustainable technologies gives the illusion that some tangible work is being done to address the environmental crisis. And from this illusion comes a sense of complacency and achievement, even as, in fact, the environmental crisis is being worse getting with every passing moment.

What goes unnoticed is the root of the problem – that sustainable technological solutions cannot be expected to bring about any drastic, systemic change if they themselves are being defined and implemented within the core capitalist framework. Under such circumstances, these solutions will merely serve to supplement and perpetuate the existing mode of capitalist development, albeit through seemingly more virtue-signalling means.

Per capita energy from fossil fuels, nuclear and renewables, 2024

Measured in kilowatt-hours of primary energy consumption per person, using the substitution method.



Data source: Energy Institute - Statistical Review of World Energy (2025); Population based on various sources (2024)
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For instance, in the first half of 2025, for the first time, renewable energy overtook coal as the world's largest source of electricity (Rowlatt, 2025). China, with the largest renewable energy deployment, led the change. Even India is on track to become the second largest market for renewable energy (Das, 2025). Despite this, countries like China and India continue to be leading coal producers and consumers, while US and Europe similarly continue to depend on gas and oil. It is mainly that these countries have successfully integrated renewable energy into their investment chains, and China has even made a successful export model out of it. Effectively, thus, renewables have been integrated seamlessly into the existing capitalist supply chains.

(To be continued...)

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A DECISIVE TURNING-POINT IN THE HISTORY OF THE EARTH

“At the moment we are at a decisive turning-point in the history of the earth, once again. From every side I am asked, “What is going to happen?” Everywhere there is anguish, expectation, fear. “What is going to happen?...” There is only one reply: “If only man could consent to be spiritualised.”

And perhaps it would be enough if some individuals became pure gold, for this would be enough to change the course of events.... We are faced with this necessity in a very urgent way.”

– The Mother
(CWM 9: 75)