

**Focus**

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**Global Climate Breakdown: Unveiling the  
Nexus between Fossils and Capitalism**

Talha Tufail Bhatti

# Global Climate Breakdown: Unveiling the Nexus between Fossils and Capitalism

Talha Tufail Bhatti\*

## Abstract

*In the summer of 2023, the world witnessed a temporary overshoot scenario (from 1.5-1.7°C) due to which an era of climate breakdown has begun. In this article, the vicious nexus between unabated fossil fuel consumption and capitalism is explained. The two contrasting realities co-exist: firstly, 'capitalism' has amplified 'loss and damage' and, secondly, fossil subsidies have resulted in exploitation of minerals. Historical capitalist madness for GDP growth exploited developing economies through Burt laws of supply chain and its 'green growth' for trading carbon credits in voluntary or compliance markets. This article calls for removing fossil fuel subsidies and imposing a 'permanent' ban on fossil-mineral financing. Furthermore, literature on the subject emphasises the role of 'indigenous knowledge and degrowth', for environmental conservation and restoration. Therefore, climate financing facilities like the 'GCF' need to facilitate eco-centric, country specific, and locally-led initiatives rather than exploiting them. This paper highlights limitations for 'COP-28' based on the observation upon first GST*

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*report, and appeal to update 'climate models' in AR7 for delay in climate action. Conclusively, recommendations have been made for bridging the gap between the north and south while improving domestic climate action framework.*

**Keywords:** *fossil fuels, capitalism, loss and damage, global north and south, indigenous communities, degrowth, climate finance, Global Stocktake, COP-28*

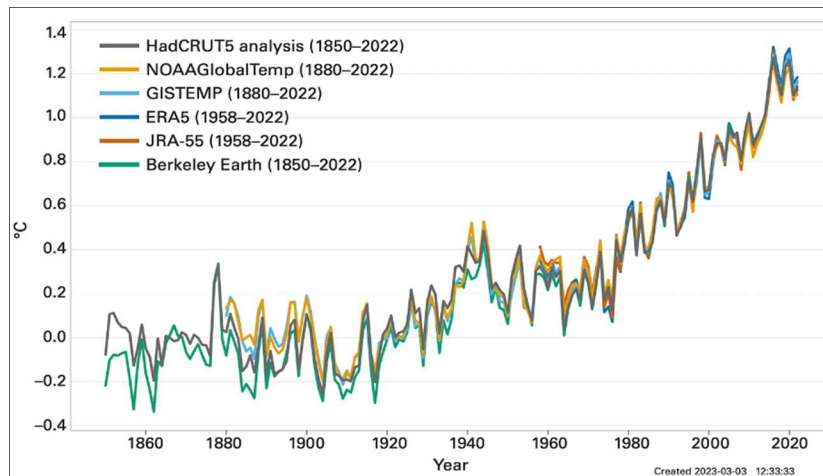
## **Introduction**

Since 1850, multiple international weather stations around the globe recorded temperature anomalies. After 2016 Paris Accords, the world raced for emission peaking and in 2023, it was predicted that in October 2023 the earth would become the hottest that it had been in the past seven years as compared to 174 years, reaching 1.4°C global mean near-surface temperature, indicating fragile resilience. The data collected by 'Berkeley Earth' from multiple credible databases and observations clearly shows that the earth has rapidly warmed in the last seven decades as shown in *Figure 1* due to which the planet was pushed into a weather break-down, also referred to as climate break-down. Two of the major underlying reasons observed for this were fossil fuel-backed economic growth and their resultant carbon emissions. Furthermore, scientifically speaking, the age of averages is over, because in 2023 extreme hydromet<sup>1</sup> events were enhanced in frequency and intensity all around the globe. They were representing 'new normal', within this year every continent was hit by unpredictable biblical weather events. As a result, planet earth just experienced three consecutive hottest months in the historical database of 12,000 years, e.g., specifically temperature anomalies, notably within June, July, and August. According to

the latest available sensors, currently only 1.15°C is above pre-industrial levels and with current rates of emissions earth will exceed the remaining 'carbon budget' for 1.5°C in the coming 6 years. Unfortunately, as calamities were never even for everyone, vulnerability between classes will be exposed.

**Figure 1**

**Temperature anomalies from 1850-2020 against 1.5 limit <sup>2</sup>**



On the other hand, capitalism has been and remains directly proportional to climate crisis. Since 1850, fossil-backed economic development exploited natural resources, and it is just one of the many crimes committed by the global 'petro-elite' against planet earth. Additionally, environmentalists already feel threatened by the market-centric approaches of the United Nations Framework Convention on Climate Change (UNFCCC),<sup>3</sup> as trendy 'carbon offsets' were an emerging concept within conservationist or green capitalists. Initially, multiple mineral hungry investors with their joint ventures in "compliance and voluntary carbon markets" claimed large operational control upon Land Use, Land-Use Change and Forestry (LULUCF)<sup>4</sup> in the

name of carbon credits,<sup>5</sup> against protected 'lands and territories' owned by indigenous communities. Similarly, capitalist usually mine minerals like 'lithium and cobalt' in lush green plains and on the other hand promote green in energy markets, such fossil-mineral exploration and extraction financed by Multilateral Development Banks (MDBs) like Asian Development Bank (ADB), World Bank (WB), Global Investment Bank and Financial Services (CITI group) etc.

It is evident that, despite the abundance of evidence-based climate attribution studies, MDBs<sup>6</sup> worldwide continue to supply finance for fossil-mineral projects. Primarily, humanity is on the edge of total societal collapse because of centuries of uncontrolled 'economic growth' which pushed earth into inhabitability. Conceivably in the last two decades, scientific literature had a significant shift in the narrative from "where to survive" to "how to survive." The argument suggests that *climate crisis has been and is fundamentally a fossil fuel crisis*. The key is behavioural change to adapt 'indigenous lifestyle and degrowth.' The aforementioned change is the only way to put an end towards fossil addiction for prevention of extinction upon *homo-sapiens* and countless other species. The argument suggests, the concept of 'degrowth' should be based upon locally-led community initiatives. Such initiatives must be promoted for 'sustainability and modernity.'

Subsequently, during the last century global south was exploited for crude oil and presently 'green' is emerging threat in the name of 'just energy transition' only because of mineral supplies. The world in the near-term will never be ready to phase-out fossil fuels, instead of active regional conflicts like Israel-Palestine or Russian-Ukraine wars further boost fossil corporates

to exploit natural resources and earn more record-breaking profits. Furthermore, big polluters frequently run away from demand of reparations from global south, as in the recent Green Climate Fund (GCF) second replenishment, lack of donations was observed. Similarly, concluding recommendations of all five meetings of transitional committee for the loss and damage fund were un-justifiable examples. So, what holds the credibility of upcoming COP-28 when UNFCCC and Intergovernmental Panel on Climate Change (IPCC) clearly warned that 1.5°C is scientific target not a political one? How could former colonies be resilient enough against extreme events while staying decoupled from deeply embedded capitalist interests?

This study has been carried out by bringing together keywords of 'Capitalism and fossil fuels' within available literature. Review includes multiple research papers, latest relevant reports, and dashboards. A thematic analysis was carried out to locate recurrent patterns. To credit the original authors and uphold academic honesty, thorough citations and references were used. Some of the major literature sources consulted for this research included:

- Paris Agreement of the UNFCCC, enforced on 4 November 2016: 193 countries were signatory to the Agreement. It holds 30 articles and aims to combat climate change, limit temperature rise, enhance adaptation, and promote global cooperation.
- January 2023, Oxfam Briefing Paper *Survival of the Richest*: The Report explores how, in recent history, taxation of the richest was far lower and how billionaires pay their fair share tax and how elite power catalysed not just economic

inequality, but also racial, gender, and colonial inequalities.

- 'Berkeley Earth': Comprehensive open-source global data and highly accessible, global temperature data which was used for this study is timely, impartial, and verified. The end goal was to compile a wide range of data analysis which also includes spatial-temporal analysis.
- August 2023, International Monetary Fund (IMF) Fiscal Affairs Working Paper titled 'IMF Fossil Fuel Subsidies Data: 2023 Update: This resource was chosen to guarantee a thorough representation of the most recent subsidies for fossil fuels.
- UNFCCC Global Stocktake Synthesis Report 2023: The report focused on the Technical Dialogue of the first global stocktake which was based on inputs received throughout the process and discussions held during each of the three meetings of the Technical Dialogue.

Literature from various types of disciplines has been reviewed for the purpose of this study. In the second phase of the research, after gaining access to the target publications, a thorough analysis of the contents was carried out using filters and keywords. The references of each publication were also reviewed to find other potentially related publications and the relevant ones were added to the database. A total of 70 plus publications, including news articles, research articles and latest reports were analysed for the research. This article draws on insights therefore is far from being complete and the study's validity is preserved by careful selection of reliable sources as mentioned above.

## Background

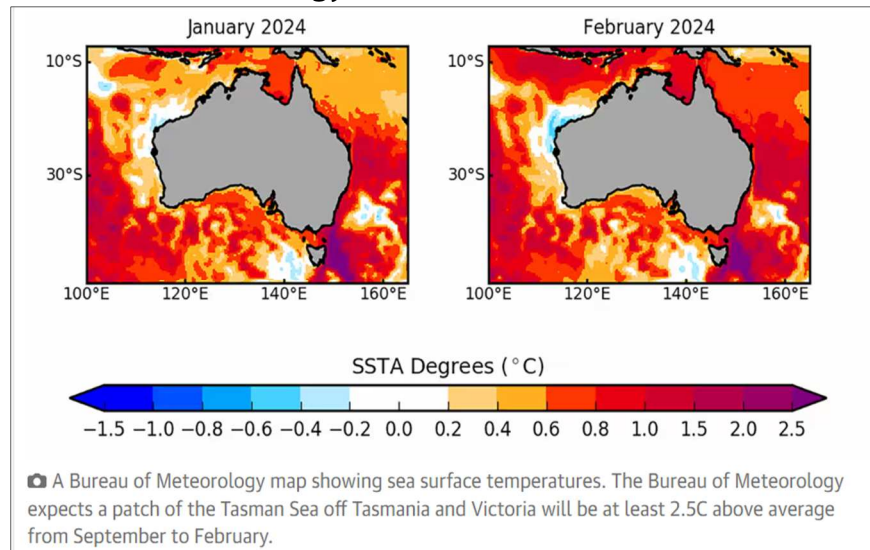
The world was never on track for a long-term low emission pathway set by the IPCC, as the World Metrological Organization (WMO)<sup>7</sup> stated that in 2023 June, July, and August were the warmest months on record for the last 12000 years. Particularly, in the last 70 years<sup>8</sup> Anthropocene<sup>9</sup> altered multiple “biophysical systems,”<sup>10</sup> and such elite “carbon intensive lifestyles” breached planetary safe limits.<sup>11</sup> In addition, top weather forecasting agencies like WMO and UK Met warned about the signs of abrupt changes due to “*El Nino*.”<sup>12</sup> Additionally, the recently turned ‘positive-Indian Ocean Dipole’ (IOD) further intensified extreme weather conditions. As a result, world climatologists were concerned about 2024, especially with regards to the possibility of an Australian summer as shown in *figure 2*.<sup>13</sup> Therefore, fire alarms will be inevitable for the state authorities. To sum up, the potential impact of the aforesaid is going to be unprecedented, biblical, and cascading in nature. So, it will be crucial to carry out effective *Monitoring and Evaluation* in a transparent manner to support attribution studies for accurate climate feedback loops.<sup>14</sup> The concluding section offers recommendations to update ‘climate models’ for seven assessment cycle because stimulation needs to include delay actions.<sup>15</sup> A recent study found out that only 250 billion tonnes of CO<sub>2</sub> emission budget is remaining, thus in the long-term earth will tilt towards a high overshoot scenario (2.7-3.2°C).<sup>16</sup>

In the last 500 years, capital investors or colonists pursued a never-ending quest for ‘materialism’, upheld by exploitation of natural resources (water and air) and minerals. This framework was never sustainable, fortunately the idea of ‘minimalism’ was



promoted by the world leading intellectuals like Andre Groz, Mahatma Gandhi, and Jason Hickel. *Degrowth* is the inception of intentionally slowing down economic growth to stabilise the planetary warming.<sup>17</sup> However, developed world has not shown seriousness toward sustainable degrowth. In contrast, fossil industries manoeuvre 'doubt and denial' regarding climate sciences through mass media and delayed much needed action regarding readiness and preparedness against climate change. As a result of negligence, climate activists are increasingly becoming 'collapse aware',<sup>18</sup> and argue that our civilisation has decades left, as we will be the 'last generation.'

For this reason, climate protestors around the world are gradually becoming 'radical and disruptive' in nature.<sup>19</sup> As the media-outlets recorded protesters multiple times for moving towards confrontational activism, thus, from blocking roads to gluing hands on the old painting were some interesting new tactics for symbolic protests. Watching protestors 'gluing' themselves while chanting the 'Ban Fossil Fuels' was and will be traumatic but sadly 'conflict, abuse, and brutality' holds longer retention time upon social media platforms like X, Facebook, Instagram etc.<sup>20</sup>

**Figure 2****Bureau of Meteorology: Australia's official weather forecast****Tipping points: A point of no return**

The World Meteorological Organisation (WMO) stated that “there is a 66 per cent chance that the world will temporarily exceed 1.5°C in the next five to seven years because of strong El-Nino.”<sup>21</sup> Additionally, a scientific journal nature published that ‘Tipping points’ could even trigger between 1-2 °C of warming. As the world gets warmer, several tipping points have become likely active. Some of them are already active. For instance, the Greenland and the West Antarctic ice sheets could lead into existential threat for coastal ecosystems.<sup>22</sup> Thus, as the unhealthy signs of planetary resilience, manifested to the breach of safe workable limits of planet earth, environmentalists now stand alarmed. In short, it closes the window for holding the 1.5°C biophysical limit under-control. Certainly, no country would be

spared from the consequences, necessitating urgent transformational decisions for the planet earth.<sup>23</sup>

### **Capitalism: The Original Sin**

Capitalism was, is, and will be a crucial driver for environmental degradation vis a vis climate change.<sup>24</sup> Since the 1850s, GHG emissions were factually indicating that climate was colonised by 'industrial revolution' and through such carbon intensive trends managed to alter global and regional micro-climates as shown in *figure 1*. As a result, 'eco-colonialism' emerged as a concept that identified 'forced alternation' of how, why, and who was at fault for climate crisis. Moreover, if mis-governance is added into lack of vision with fragile infrastructure, the result would be same as today the public and private stakeholders only curtain the socioeconomic vulnerabilities. Traditionally successive independent states in the last century could not maintain sustainability without external fiscal support. On the contrary, mostly local social elite jumped into the leftover power vacuum of decolonisation. Undoubtedly for capitalists, it was always profitable to import cheap agricultural goods than to investing in high tech manufacturing plants in the unstable economies. Ironically most of the SIDs and LIDs 'historically and presently' only export 'un-processed' products, for example agri-based organic food, livestock meat, and raw minerals.

Capital accumulation requires cheap labour, a unique privilege of supply and demand that restricts wealth within a few hands. According to available database since 2020, the richest 1 per cent captured almost two thirds of all new wealth and their fortunes were increasing by \$2.7 billion per day and earned \$42 trillion.<sup>25</sup> In addition, Oxfam's latest publication 'Survival of the

Richest' expressed serious concerns over taxing the rich, for example Elon Musk, paid only 3 per cent of tax from his total revenues in 2014-2018.<sup>26</sup> During the same period Aber Christine, a market trader in Northern Uganda selling basic agricultural products making \$80 per month paid 40 per cent tax. Nevertheless, an independent analysis claimed that 32 per cent people in Britain still feel proud of colonial history during which extreme poverty prevailed due to manmade famine.<sup>27</sup> Another example was the colonial history of South Asia, during which suffering of the marginalised communities was inevitable. Generally, countries which were the least industrialised contributed negligibly to global warming but were far more fragile and vulnerable against climate crisis due to their western dependable economies. Later, another analysis carried out by Oxfam stated that a minimum of 1.7 billion workers across the globe experienced a situation in 2022 where the rate of inflation surpassed their wage, directly impacting living cost and their purchasing power, making it more challenging for them to afford necessities such as food or electricity.<sup>28</sup> Finally, it is important to note that extreme poverty was not a normal condition of humanity prior to the rise of neo-capitalism, because nobody then had access to the higher welfare standards of life that are available today.<sup>29</sup>

In 2022, the World Bank publicly announced that its program to reduce extreme poverty had come to a halt and the IMF forecasted that third of the global economy will be in recession in 2023.<sup>30</sup> However, industrialisation with regular updates in technology became a way of development because such initiatives produced new goods that were non-existent in the past for example, modern healthcare, higher education,

means of mass transportation, and electricity. Such innovations delivered promises of achieving higher life expectancies and opportunities to improve the quality of life. Consequently, corporate executives, fly in their private jets to the mountains of Davos, while most unprivileged face dramatic and destructive consequences by in large.

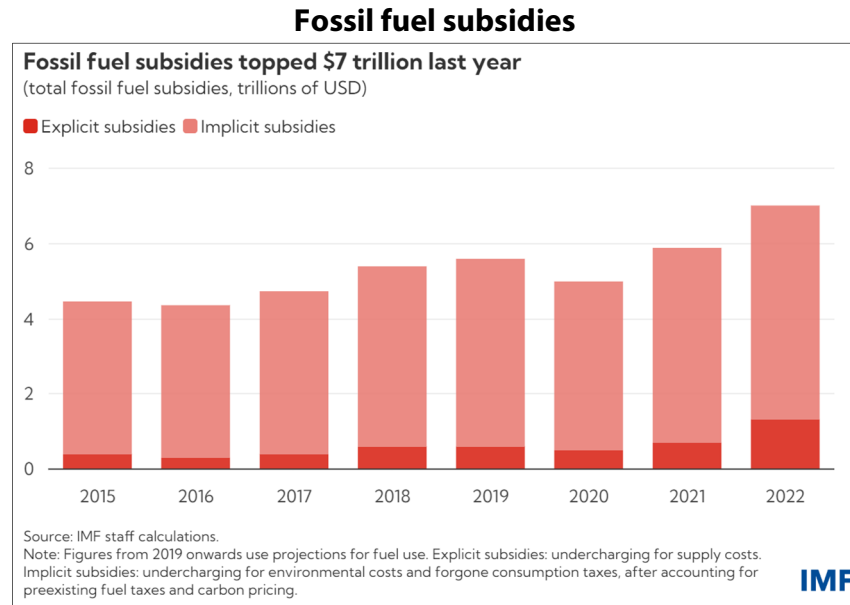
Certainly, in the last 150 years, humanity was on a high carbon emitting pathway which tilted earth toward a 'high to very high' overshoot scenario and, ironically all this chaos became possible because fossil fuels were so cheap to secure and sustain the permanent energy supplies. Consequently, it was the original sin of humanity which was further solidified with huge subsidies and public tax reliefs.

### **Fossil Fuel: Subsidies**

Historically, the access and extraction of fossil fuels changed everything around the earth. According to a recent analysis published by the IMF, fossil fuel subsidies increased by \$2 trillion between 2020-2022.<sup>31</sup> The same reports analysed fossil fuel national policies of 170 countries indicating that \$7 trillion of subsidies were given globally in 2022 as shown in *figure 3*. The corporate banks (both commercial and investment) were the largest financial contributors to the unabated fossil fuel industries. Recently *Banking on Climate Chaos-2023 Report* analysed the financing of the world's 60 largest banks and quoted that US \$5.5 trillion investment in fossil fuels in the last seven years, with \$673 billion in the fossil financing in 2022 alone.<sup>32</sup> Subsidies for oil, coal, and natural gas were around 7.1 per cent of global GDP which is more than the average state spending annually on education (4.3 per cent) and about two thirds of

healthcare (10.9 per cent). The majority of these implicit and explicit subsidies were often not reflected in the consumer prices of fossil fuels, especially for the dirtiest coal and diesel.

**Figure 3**



The analysis further explores the consumers cost of fossil fuels and reports that consumers did not pay for environmental degradation which was over \$5 trillion only in 2022. Today the price of fossil fuel does not reflect environmental degradation cost, from poisonous unbreathable local air pollution to collective impacts like extreme weather events which only occurred due to excessive carbon dioxide emissions.

Thus, 'Oil and Gas' was always a profitable industry for capital investors because it is directly connected with the cost of living. Interesting war always make profiles for fossil industry like US invasion of Iraq and Afghanistan. When Russia invaded Ukraine back in February 2022 fossil industries around the world

earned record profits amounting to \$4 trillion. All these monetary profits fell into a handful of banks based in the United States, Canada, and Japan.<sup>33</sup> Furthermore, if the reliance on the availability of fossil fuels persists in the near-term, then predictably commodity prices will consistently display volatility against fossil fuels prices. Fossil fuel prices need to be reformed in the near-term in order to ensure consumption reduction. Thus, humanity must reduce 43 per cent of its global carbon dioxide emissions during this decade, because failure to do so would likely put the goal of containing temperatures of 1.5-2°C impossible. In addition, raising fossil fuel prices can be challenging for ruling political government of any state but surely could prove beneficial for the long-term whilst utilising the collected revenue to promote inclusive development projects which can eradicate colonial dependence and reduce natural footprint.

## **Solutions**

### **Degrowth: A Concept of Minimalism**

Degrowth should not be confused with recession or economic depression, as it is a carefully planned and intentional transition towards a *whole of society approach* where both production and consumption decrease gradually, while enhancing overall natural well-being and a fairer distribution of natural resources among the people. Naturalists and environmentalists pushed the ideology of degrowth because there was a growing consensus among scientific communities on the incremental trend in frequency and intensity of extreme weather events (i.e., tipping points). Adaptive resilience against climate change was not same for everyone, 'Loss and damage'

was inevitable for the marginalised communities and classes due to their socio-economic vulnerability, for example 2022 floods in Pakistan. Therefore, achievement of Sustainable Development Goal (SDG) no. 13 (i.e., climate action) by 2030 would require sustainable degrowth to reduce carbon emissions with conceptual alternation in social, environmental, and economic policies. This argument was based on the understanding that genuine happiness derives from meaningful relationships and experiences with nature, rather than the accumulation of material possessions and the pursuit of high social status.

World's top economist quotes that "industrial production is necessary to meet decent and quality living today." Perhaps it is fair to assume that capitalism was curtaining the historical negative impact on environmental degradation.<sup>34</sup> Scientifically, if modelling stimulation were run on the meteorological database for last 170 years '1850-2020' as shown in *figure 1*, then GDP growth would be directly proportional to fossil footprints, especially in the last 30 years 1990-2020. This indicates that the world corporate elites enforced wealth accumulation to a handful of people rather than enabling it for all in the developing parts of the world. Due to unequal research and technological development between the global south and the global north, most of humanity still looks forward to fossil-based development pathways while ignoring the fact that fossil emissions majorly contributed towards climate crisis. In simple words, for behavioural change the society as a whole needs to adapt its ancestral lifestyles which was far less carbon-intensive.



## **Indigenous Communities**

Mostly indigenous communities live in far-flung areas in their own traditional manners. They were the stewards of mother nature and held the expertise in strengthening the ability of resilience through eco-centric adaptation. Therefore, they have a special relationship with their lands. Successive generations acted consciously and bridged a dialogue between traditional and modern worlds. Western economies already exploited their micro-climates and endangered indigenous territories for natural resources around the globe, therefore it is very important for the Conference of Parties in the Paris Agreement to recognise their role in natural conservation and sustainability.

Furthermore, 'Green colonialism' is an emerging concept between indigenous community chiefs, and they are highly concerned for such forced exploitations of rare minerals and other natural resources like water.<sup>35</sup> The world needs to prioritise the land right of traditional communities rather than exploiting them.<sup>36</sup> "Leave no one behind" proved to be a vicious expression, and exploited through mining of minerals such as nickel, lithium, cobalt, and copper from Africa. Mineral hungry 'green economy', is now appearing as a serious threat to the indigenous communities' lands and identities.<sup>37</sup> Their natural minerals directly support car batteries, in energy markets such rare earth minerals are more precious than gold, and all become legal in the name of *fast tracking just transition*. Today, with modern technology like machine learning, the world can harness indigenous knowledge base and synthesise a comprehensive developmental pathway which could be eco-centric, and community-led. Perhaps those who were leading historical

progress were not on the right pathway. There is hence, a dire need to bridge culture prestige with modern technology of AI.

### **Bridge Global North and South**

Following the literature in the Paris Agreement, it was observed that multiple articles already exist to bridge work-able programs between the global north and global south, for instance, Articles 2, 4, 5, 6, 8, 9, 10, 11, and 12. For better understanding, according to Article 4, the Paris Agreement “aims to reach global peaking of greenhouse gas emission as soon as possible”, however, a logical pathway reasonably states that “peaking will take longer for developing country Parties.” Additionally, colonial history was one of the repeated commonalities highlighted by the literature as an active reason behind such fragile abilities against peaking of the global south. As a fact, during 1880-1920, more than 100 million people in South Asia lost their lives only because of unequal treatment of humans.<sup>38</sup>

Global south negotiating alliances in the UNFCCC were mostly based in developing countries like Pakistan, G77+China,<sup>39</sup> LIDs,<sup>40</sup> AOSIS,<sup>41</sup> SIDs,<sup>42</sup> can and in fact could develop their green infrastructure by themselves, but due to certain traditional and non-traditional issues like economic instabilities, it will take decades to overcome basic green infrastructure issue. As recommended by GST 43 per cent reduction before 2030 is essential to keep the threshold temperature of 1.5 degree Celsius under control. Therefore, it could only be possible if the developed countries agree to support developing countries to become green as soon as possible.

Ironically, in recent GST Synthesis Report, concerns of the UNFCCC were written clearly, that global leaders, likely the EU and the US were not fulfilling their pledges. Global North, always runs away from pledges that they made during multiple past Conventions of Parties, for example the Kyoto Protocol and most recently the Paris Accord in 2016. The global north, mostly western countries like the G7 made significant progress in the last seven decades and were capable enough of harnessing new methods and got far more advanced in certain technologies than the rest of the world. These advancements include generative AI intelligence and machine learning, cyber security, and biotechnology. Presently, developing countries are irrelevant to the global debates even in geo-economics because mostly they lack 'trained' human capital than their developed counterparts. Furthermore, a decreasing trend was observed in total pooling of countries for climate financing, from 45 countries in initial resource mobilisation of Green Climate Fund (GCF) to 24 in the second replenishment phase of GCF-2 while in the Transitional Committee (TC) has 24 members in total, out of which 14 belong to developing countries and 10 belong to developed but still everything eventually favours G7.

### **Climate Finance: A Moral Question**

According to World Bank, investing 1 dollar in prevention saves 7 dollars spent after a catastrophic event. The popular Green Climate Fund (GCF) was originally structured to be a lifeline for climate action in developing countries like Pakistan.<sup>43</sup> During the recent High-level pledging conference for second replenishment (i.e., GCF-2) some countries like Germany increased funding, and pledged \$2,205.7 million with an increase

of \$516 million, which deserves recognition, while the lukewarm commitments from countries like the UK, France, Japan, Canada, and Norway were deeply concerning. Certain countries, such as Sweden, appear to be avoiding their fair responsibilities by not pledging anything for the second replenishment.<sup>44</sup> Likewise, the lack of financial commitment from the United States was equally unjustifiable.<sup>45</sup> At the end, twenty-four countries pledged support to the Green Climate Fund with \$9.3 Billion over the next four years between 2024-2027.<sup>46</sup> Hence, the world was looking toward *Transitional Committee* in the last and most important TC4 Meeting which was held in Aswan, Egypt, between 17-20 October, 2023. This final meeting also failed on fast-tracking funds because the developed world wanted the World Bank as trustee to the Loss and Damage Fund. The World Bank will be charging 17 per cent hosting fee for the Loss and Damage Fund, meaning that the biggest beneficiary of this fund would be the Bank itself. The 10,000 employees of the World Bank would get more money than the millions of people in the developing world. Additionally, the Transitional Committee has added a fifth meeting ( i.e., TC5), as it is called, for early November, to make one more effort to finalise the set off recommendations. The recommendations will include elements such as which countries should pay into the fund, which countries will be eligible to receive loss and damage payments, how the Board of Directors will be set up and again, importantly, where will this fund be hosted? TC will have to decide whether it is the World bank or United Nations? All depends upon how the world decides the location of the funds and the various sources of funding.

One of the major obstacles to such financing funds facilities was and is the lack of commitment from big polluters or

wealthier nations and transparency in developing nations. Such intentional delays only increased the risk of maladaptation, as vulnerable economies across the world were getting fragile against natural disasters by each passing day. Therefore, it is essential to improve public and private financing to make such instruments workable which necessarily support financial liquidity. Simon Stiell, UN Climate Change Chief said “phasing out and transitioning away from fossil fuels is a very tough challenge in a world that has built its industry and infrastructure on exactly that.” Now hopes are pinned towards “COP-28”, conference of parties must live-up to the true spirits of Article 14 in the Paris Accord.<sup>47</sup> Dr Sultan-al-Jaber published a clear thematic roadmap for the upcoming COP-28 hosted in Dubai.<sup>48</sup> As we approach COP28, it is apparent that the GCF replenishment and Transitional Committee had not met the initial expectations.<sup>49</sup> However, it is crucial to remember that countries are not limited to making pledges only during specific intervals because the Paris Agreement empowers them with the ability and the responsibility to step forward with contributions at any time for support to climate action.

### **GST and COP-28: Last Decade of Hope**

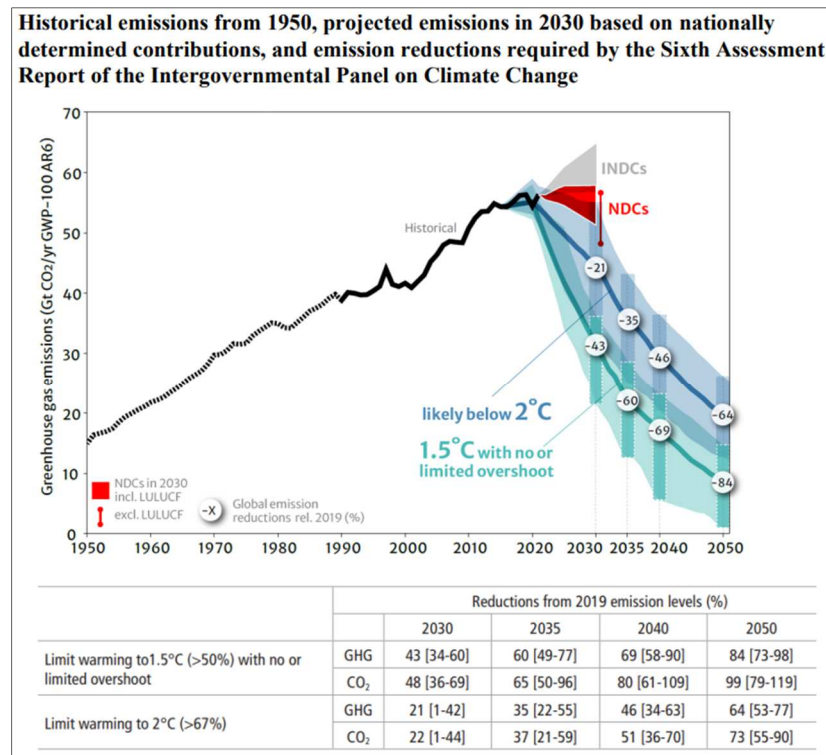
A flagship Synthesis Report of First Global Stocktake (GST) by the UNFCCC analysed 130 countries’ nationally-determined contributions through multiple technical dialogues carried out by ‘Subsidiary Body for Scientific and Technological Advice (SBTA) and Subsidiary Body for Implementation (SBI).<sup>50</sup> SBTA and SBI critically reviewed 170,000 pages of long ambitious adaptation actions and mitigation frameworks that were undertaken by individual party to the convention under the guidelines of the

Paris Agreement. The GST states “much more ambition in action and support is needed in implementing domestic mitigation measures and setting more ambitious targets in the NDCs to realise existing and emerging opportunities. For example according to the latest available science, if the polluter really want to divert 3-5°C hothouse earth, 43 per cent reduction in global GHG emission by 2030 will be necessary and further 60 per cent by 2035, as shown in *figure 4*.

It is a fact that the use of fossil fuels contributes majorly to global warming.<sup>51</sup> UNFCCC clearly made an urgent call for turning plans into action and recommended to enhance financial liquidity for implementation, for example decoupling from IPPs to phasing-out the unabated fossils. A key finding which was focused upon in the Report said that “global emissions are not in line with modelled global mitigation pathways”, such implementation gaps cumulatively generate around 20.3-23.9 GtCO<sub>2</sub> eq emissions.<sup>52</sup> Therefore, it is essential to update models which can critically review all the delayed climate actions to answer the calls of Climate Justice as premium against climate-induced loss and damage. Leaders of the modern world like England publicly provoke its climate pledges by announcing major U-turns on the state plans for climate targets and actions, for example the UK intentionally delayed its financial commitment of £11.6 billion.<sup>53</sup> The dialogue and conferences held this year in the lead-up to COP-28 had majorly failed to secure fresh optimism. Starting from the Bonn Talks in May then crossing the UNGA Climate Summit in September to Transitional Committee meeting in October, and now Pope Francis and King Charles attended COP-28. So, what holds the credibility of COP-28?<sup>54</sup>

Figure 4

### First Global Stocktake.



### Climate risk assessment: Seventh Assessment cycle

This year, the IPCC organised a workshop in Bangkok, which highlighted the need of *next generation framing pathways* that could integrate and intercept consequences of delayed policy implementations as recommended by the AR6, assess adaptation needs against loss and damage, identify impacts of orthodox tech deployment for example Solar radiation modifications and Carbon capture and storage, for the next 5-10 years.<sup>55</sup> For Seven Assessment Cycle (AR7), new Representative Emission Pathways (REPs) are recommended by the IPCC.<sup>56</sup>

## **Climate Litigation**

As of 31 December 2022, the Sabin Centre's Climate Change Litigation database included 2,180 cases filed in 65 jurisdictions and international or regional courts, tribunals, quasi-judicial bodies, or other adjudicatory bodies, including special procedures of the United Nations and Arbitration Tribunals. This number includes 1,522 cases in the United States of America and 658 cases in all other jurisdictions combined.

Global Climate Funds with all their technical facilities and goals, still manage to be failed and furthermore contemporarily dis-crediting vulnerable countries like Pakistan to even have access to Special Drawing Rights (SDRs) against financial recoveries. Despite the over ambitious National Determined Contributions (NDCs) submissions to the UNFCCC for GST, developing states clearly developed workable frameworks, but global south lacks in human and financial capital against the urgency of time to implement their own national mitigation targets and national adaptation plans.

In response to such intentional delays of international responsible community, individuals and states filed multiple cases time to time against big polluters through various legal channels, such as courts, tribunals, quasi-judicial bodies, and United Nations special procedures, as well as arbitration tribunals. The latest climate litigation came from state of California wherein a Governor filed a case against five big fossil fuel companies including BP, Chevron, ExxonMobil, Shell, and ConocoPhillips.<sup>57</sup> Regarding their denial, doubt, and delay tactics for climate action by spreading misinformation and disinformation related to climate sciences among people majorly through social media



platforms, advertisement industry, mass-media outlets, think tanks and politicians.

## **Conclusion**

This article discussed the alarming history of climatic patterns, and the record-breaking temperatures and precipitations in 2023 summers, setting the 'new normal'. It highlighted the role of fossil fuels in driving climate breakdown, emphasised that *capitalism vis a vis colonialism* had contributed majorly to climate change. The concept of *green colonialism* where mineral-hungry investors claimed territories in the name of carbon offsets, is directly impacting indigenous lands. A call was made for a complete halt on unabated fossil fuels and permanently banning fossil-mineral financing. The article also put forth the idea that indigenous knowledge and degrowth could play a significant role in environmental conservation.

Climate Justice means putting equity and human rights at the core of decision making. The Paris Accord binds the Global North to take the leading role by providing means of implementation (i.e., climate finance), while the Global South should enhance national adaptation strategies with robust Monitoring and Evaluation (i.e., climate feedback loop). Earth will exceed the carbon budget for 1.5 degree Celsius in the next 6 years at current rate and due to economic disparities in the global affairs, with each positive increment societal inequalities will be exposed. Colonial history based upon *race, ethnicity and gender* produce natural resource scarcities which generates conflicts and works as a threat multiplier for regional climate security. Proactive adaptation measures and assessments could reduce loss and damage against future climate disasters especially in the UIB-

HKH. Achieving truly net-zero status requires financial and behavioural transformation and rebooting with firm steps towards '*whole of the society approach*' are imperative to achieve SDGs by 2030.

The article also emphasised the need for climate finance, with a protest to redirect funds towards developing countries with more inclusive, eco-centric and locally-led initiatives. Delayed implementation could only generate *maladaptation*, which backlashes and undoes past developmental gains while keeping the privileged safe at the cost of the vulnerable. In this regard the limitations were also expressed for the upcoming COP-28, with recommendations to update climate models for the IPCC's Seventh Assessment Cycle-AR7. Therefore, collective efforts will be vital for bridging the gap between north and south. The literature referenced various sources, including the IPCC, Oxfam, Berkeley Earth, IMF, and the UNFCCC, to support the arguments and findings. Thematic analysis was used to identify recurrent patterns in the published literature and carefully select verifiable data sources. Overall, the article detailed a comprehensive overview of the climate crisis, its historical and current drivers, and the urgent need for a shift towards sustainable, eco-centric, and inclusive policies.

Putting neo-colonial class responsible on *Polluter pay principle* was a legit right of the developing countries because practical inputs need technical technology to develop key methodologies for genuine inclusive pathways in the near-term. Adaptation and mitigation strategies were mostly time-bound goals, and the ability to gain benefits from such implementation would be dramatically reduced if actions are not taken urgently. Humanity is in the last decade of hope and the window of

opportunity is closing rapidly. Pakistan was rightly demanding climate grant-based funding from polluting countries because securing a sustainable future for all is still possible.

## **Recommendations**

- Promote data connectivity between global north and global south especially south-south cooperation located in Hindukush Karakorum Himalaya (HKH) region like a dialogue between Pakistan, China, and India for regular exchange of critical meteorological information.
- Explore regional Emission Trading Frameworks (ETS) to enhance domestic carbon markets and develop credit Monitoring-Evaluation-Verification schemes.
- Promote local planning and funding through planning and development initiatives, without being dependent on donor funding.<sup>58</sup>
- Bridge financial liquidity frameworks which can directly channel funds from federal to district level against extreme weather events as loss and damage premium.
- Make weather attribution studies mandatory for National Disaster Management Authority (NDMA) and Pakistan Metrological Department (PMD). It is now crucial to collect evidence from monitoring and evaluation, and accurate analyse climate feedback loops.<sup>59</sup>
- Indigenous people and local governing bodies are key partners in adaptation action. Their role in integration of both within planning and developmental phase must be ensured.<sup>60</sup>
- Improve the capabilities of local institutions, to ensure they can understand climate risks and uncertainties within

their micro-climate. Youth could also play a crucial role in this for socio-economic applications. They are well placed to combine indigenous knowledge with modern technologies and practices.<sup>61</sup>

- Call for a complete ban on unabated fossil-based development.<sup>62</sup>

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