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The Green Development Pact



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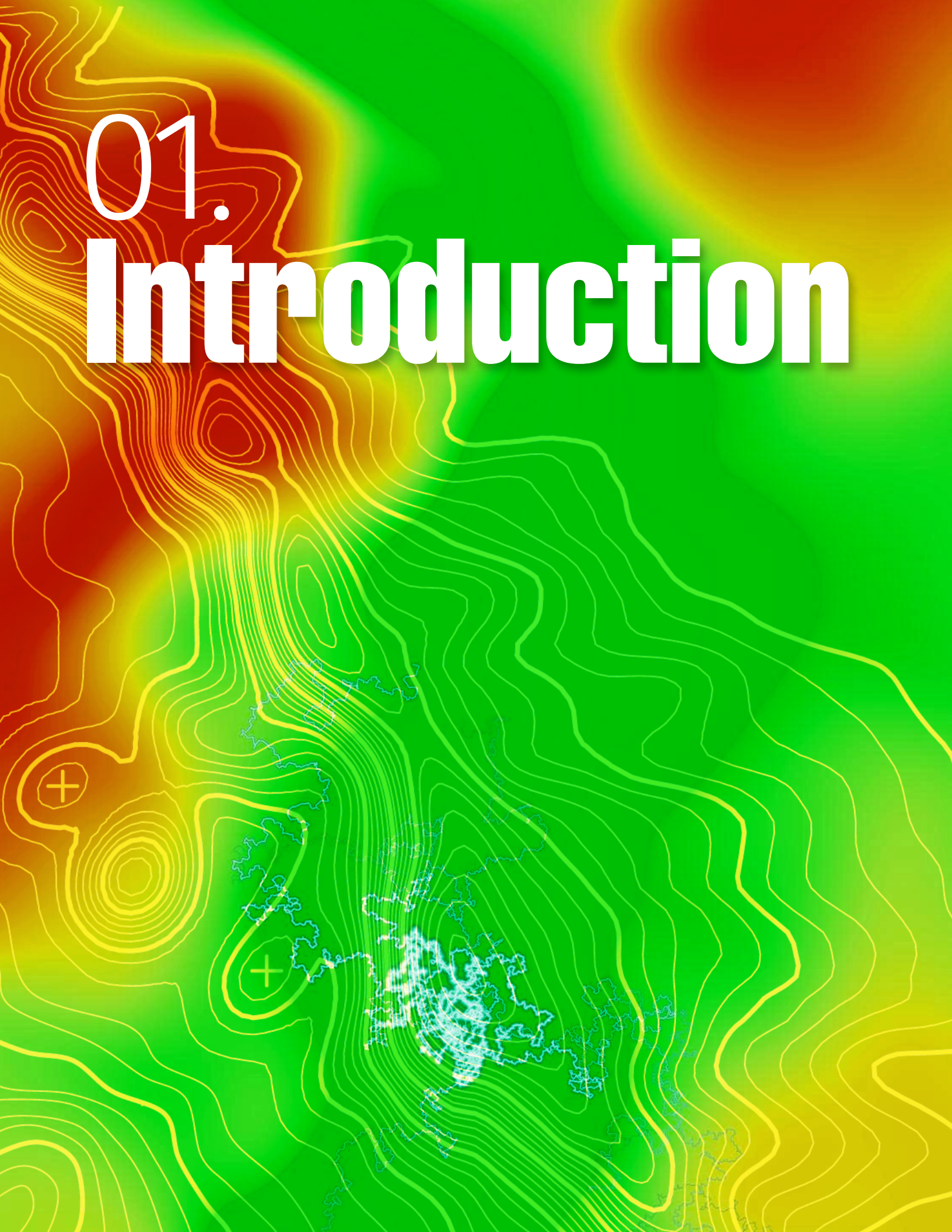
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01.

Introduction



In the 2008 Washington DC Summit, for the first time the issue of climate change was included formally in the policy agenda, proving the significance of the issue at the highest political level of the member countries.

One of the greatest concerns for humans in the 21st century has emerged in the form of Climate Change, presenting a significant challenge to every aspect of human life in the world (WHO, 2018). The industrial revolutions led to the usage of fossil fuel and consequently, the atmosphere has experienced a

26%

increase in Carbon dioxide (IPCC 2021)



There is unanimity in the conclusions of scientific observations and conclusions implying that these changes in the atmosphere and climate are unprecedented (Bengtsson 1994).

These changes are likely to alter most of the patterns relating to human lives across the world giving rise to a need for preparedness of populations to adjust to upcoming shifts in the order. Climate Change was also one of the few issues on which the majority of nations have expressed agreement to the urgency and need for remedial and preventive action.

Although the gradual changes in the climate are neither novel nor unusual, the exponential rate and the human activities as the underlying cause have snowballed the natural, and mostly gradual, rate of climate change into a series of unpredictable yet interconnected changes rapidly occurring and impacting the ecosystem of the earth. It has posed serious questions to the prospects for future generations' survival and quality of life.

Thus, the subject of climate change is no longer a concern for a few experts, but it has become a day-to-day life struggle for all individuals, rendering it the highest level of importance among the issues today. The stakeholders are aware of the cruciality of policies and implications and are increasingly demanding stronger and more effective actions from the policy-makers. On the matter of the efficacy of past efforts and commitments, the stands taken are diverse and contentious. Many argue that the opportunity to deliver on the objectives of the Paris Agreement has already closed, while others remain hopeful to attain the best possible outcomes by approaching the issue with seriousness and diligence.

The multidimensional nature of climate change as an issue puts it at the core of deliberations on many multilateral forums, including and prominently the G20. To put more perspective, it is important to briefly assess the profile of G20 as a multilateral



forum. The G20 has its origin in the aftermath of the Asian Financial crisis, necessitating a platform for discussions on economic and financial cooperation. Within a decade of its inception, the G20 as a forum evolved to the level of Heads of State as the “premier forum for international economic cooperation”. From a macroeconomic outlook, the forum since has expanded its horizon to include various allied issues such as trade, technology, energy, environment, climate change etc. Collectively, the G20 represents 19 countries and two regional bodies (the European and African Union), 85% of global GDP, Two-thirds of world population, and 75% of the Global Trade. Thus the discussions conducted on the G20 platform hold significance in shaping global policy and perspective on issues¹.

When the G20 came into existence, the discussions and overall movement against climate change and environmental degradation had reached relatively mature stages where multiple legally binding and non-binding instruments were in force, and there was consensus on the need to take action. To substantiate, the Rio Declaration enshrine advanced principles such as Common but Differentiated Responsibilities, reflecting an evolved approach towards climate justice and equity. The global communities were increasingly adopting international agreements into domestic legislation and policies while also witnessing nuances of climate change.

Thus, even though G20 was conceived primarily as an economic forum, it quickly adopted and accepted the correlation between economic health and climate justice, particularly after 2008. The reason for such expansion could be the significant impact climate change has on the economic growth of the countries impacting the quality of life of individuals directly. Over the years, G20 witnessed an increased focus on climate and environment-related issues, in conformity with the developments on other multilateral forums like the United Nations.

In its early years, G20 as a platform gradually reflected a cooperation and collaborative approach with an enhanced focus towards facilitating a heterogeneous accommodation for domestic policies of members. In the 2008 Washington DC Summit, for the first time the issue of climate change was included formally in the policy agenda, proving the significance of the issue at the highest political level of the member countries. For particularly Climate Negotiations, this summit was notable as it attempted to bring developed and emerging economies on a single negotiation platform, widening the scope for effective deliberations.

The year 2009 marked a significant milestone in the G20 discussions, due to the reiteration by the leaders of member states of the 2008 summit outcomes, and for formation of a strategic front among leaders for the

¹Data from G20 Official
Communique

upcoming UNFCCC COP15. The inclusion of emerging economies led to the principle of CBDR being reflected in the framework. This led to a detailed discussion on addressing the non-reversible nature of climate change at the G20 and provided a significant prequel to the COP15 discussions. As a result, the Copenhagen Accord was adopted at COP15 with the goal of limiting temperature to specific ranges by controlling Carbon Emissions. In the same year, at the Pittsburgh Summit, the G20 opted to endorse the Copenhagen Accord with additional inputs (such as calling for greater involvement of multilateral institutions like the World Bank). In the same series of efforts, the members also agreed to “phase out” fossil fuel subsidies along with investment in Green transition by investment in Green Energy.

The year 2010 in the G20 platform had a context of multiple offshore drilling accidents, which prompted the leaders to conceptualize the “Global Marine Environment Protection Initiative” as a mechanism to share the best practices among members with the element of preventive, curative and preparedness to address marine pollution. Seoul Summit of 2010 witnessed a reiteration of the support and agreement to the Copenhagen Accord and an enhanced collaboration among stakeholders (such as business leaders).

As the Kyoto Protocol was being put in motion, the 2011 Summit of G20 in Cannes had its focus on the promotion of low-carbon strategies for sustainable transition in growth. The vocal support by leaders to put the Green Climate Fund in motion remains another significant outcome of this summit. These developments paved the way for an ideological development towards inclusive green growth.

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The year 2012 G20 witnessed streamlining and consolidation of the actions on the issue of climate change in the form of the establishment of the first G20 Study group on Climate Finance at the Los Cabos Summit. This study group had the mandate of developing financing strategies under the UNFCCC for the Global South guiding the optimization of resources.

The 2013 summit at Petersburg had a distinction of including a specific theme of energy security and addressing the fossil fuel market-related uncertainties. Apart from reaffirming the previous reiterations and affirmations, a new commitment was put forth which emphasised on phase-down of Hydrofluorocarbons (HFCs) from the production and consumption side. In the 2014 Brisbane Summit, the USA expressed its support to the plan for finance mobilisation for Climate Change and stated its willingness to support the plan for \$ 3 billion for adaptation and mitigation efforts with a heightened focus on the developing countries under the framework of the Green Climate Fund. The significance of this event lies in the agreement among members regarding the need to adopt certain legally binding instruments under the aegis of the UNFCCC to address the challenges of Climate Change in a more effective manner.

At the 2014 Brisbane Summit, The leaders reiterated their commitment to the cause of climate change and the need for a legally enforceable instrument binding parties to the UNFCCC. The forum expressed the willingness of its members to put forth a combined front at the upcoming COP 21 in Paris. Parallaly, the Climate Finance Study Group established in the year 2012 Los Cabos Summit submitted its report this year presenting inputs on four areas namely, Financing for Adoption, Alternative approaches to climate finance, enabling environments, and Examining the role of financial institutions. The salience of this report also lies in the toolbox method adopted to present a wide range of practices from the members to depict multiple viable policy options.



The year 2015 was a watershed moment in the discussions related to Climate Change, and the G20 Antalya Summit had its agenda aligned with the directions of global discussions on Climate Change. The historical Paris Agreement was concluded in COP 21, and the G20 summit (held a month before) expressed its solidarity regarding crafting an equitable tool under the discussions at the Paris Conference.



At the Paris Conference as well, the countries submitted the Nationally Determined Contributions for reducing the Green House Gas Emissions, which was in consensus with the G20's call for nationally determined goals as per capabilities and policy priorities.

The outcomes of the COP21 appeared promising for the global community as they look forward to implementing the same, and the 2016 G20 summit was expected to build the discourse on Climate Change further considering the past leadership of China in this field. However, the Hangzhou summit failed to live up to these expectations and ended up reiterating the past commitments since Pittsburg on the matter of Phasing out Fossil fuel. The Finance Ministers' group assured to continue efforts to build action on climate finance. One of the few sublime outcomes was the announcement by China and the USA to ratify the Paris Agreement on Climate Change.

Under the leadership of Germany, the G20 took initiatives to increase membership and ratification of the Paris Agreement, before it became enforceable as an international legal instrument.



The efforts to materialize and streamline the actions on climate change, the G20 Hamburg Climate and Energy Action Plan for Growth was conceptualized. On a parallel note, the emerging geopolitical rift and consequences of the same were not reflected in the discussions at the G20 outcomes. To substantiate, the stance on climate change of the USA changed with its administration and resulted in its declaration of withdrawal from the Paris Agreement. Additionally, the USA also halted the implementation of its commitments previously made under the Paris Agreement, while reaffirming its commitment to lower emissions overall.

The Argentinian Presidency witnessed a noticeable shift in the G20 discussion as more focused efforts on the adaptation aspect of Climate change emerged in the works of the Climate Sustainability Working Group. These efforts spanned across adaptation via national planning, cooperation, and resilience building. The year 2017 for G20 offered very few specifications in its conclusions, as detailed discussions on this matter were expected at the upcoming COP24.

In the year 2019, under the presidency of Japan, G20 was able to present a more detailed perspective combining the issue of climate change and growth. While the ambiguity in conclusions remained a challenge this year as well, several newly emerging ideas were conjoined in the ongoing discourse, for example, the concept of circular economy.

Among the notable themes, **Japan** was able to put oceans within the climate change discussions at the G20 discussions, and towards the same objective the “Osaka Blue Ocean Vision” was adopted as a means to address marine pollution by 2050. The leaders also agreed to create an Implementation Framework for Actions on Marine Plastic Litter to specifically target plastic pollution, under which the members agreed to pool data, and solutions, and move towards implementation of the core-objective of the framework. It would be noteworthy that the Osaka Summit did serve as a prequel to the upcoming COP26 meeting, rather than a meeting with a standalone agenda.



The discussions at Osaka did not result in any agreement in consensus for all the parties. The meeting concluded with highlighting the need to address the complexities of Climate change including multifaceted environmental issues. The innovative approach taken in this year's summit with the aid of technology, and a range of theme-based meetings produced positive results in the form of joint commitments concerning environment and energy transition for the first time, with the adoption of G20 Karuizawa Innovation Action Plan on Energy Transitions and Global Environment for Sustainable Growth.

In the year 2020, the Riyadh Summit was concluded against the backdrop of the ongoing pandemic, yet it managed to create a non-negotiated declaration on Climate Change along with an endorsement for the Circular Carbon Economy. Alongside, the USA under the presidential leadership of Joe Biden rejoined the Paris Agreement while the discussions on differentiated responsibility remained largely stagnant as the persuasion was aimed at all the countries to achieve Net Zero GHG Emission by 2050, to which developing countries remained reluctant.

The G20 summit of 2021 was organized under the presidency of Italy, and it remains one of the most significant in terms of outcomes related to the Climate negotiations. The discussions this year addressed many aspects of Climate change, consolidating the outcomes of past discussions and including the elements from contemporary discussions on the subject matter. To illustrate, circular economy, instruments related to Climate finance, fuel subsidies, mitigation etc. formed part of various discussions. Another significant development came in terms of the expansion of the mandate of the Climate Finance Study Group, prompting the renaming of this group to "Sustainable Finance Study Group". With the new mandate, the group took the responsibility of developing a roadmap for Sustainable finance with a focus on Climate and aligning various types of institutional efforts for climate finance at the international level with the objectives of the Paris Agreement. This indicated the holistic and broader approach the group was headed towards in its perspective towards combating Climate Change.

This year was also remarkable in terms of the macroeconomic view taken on the climate, establishing its implications on global economic health, in furtherance of the same line of thought, the Action Plan for G20 this year included a new pillar concerning the protection from Climate and its impacts. In addition, the group reiterated the previous commitments towards the UNFCCC and the Paris Agreement acknowledged the findings of the IPCC and the need to accelerate efforts to attain Net Zero Emission targets. The leader's declaration also took note of the particular vulnerability of the poorest sections and the necessity of effective adaptation strategies while also re-advocating for the previous commitment of mobilizing USD 100 Billion annually.

The Italian presidency also witnessed some of the emerging rifts in the perspectives of developing and developed countries, which became wider in the following COP26 discussions.

This reflected the disagreement over the attainable temperature rise with developed countries advocating for a

 **1.5°C** annual rise warranting Net Zero by ALL by 2050.

This became a point of contention as the developing nations did not want to trade the economic growth and wanted implementation of Common But Differentiated Responsibility, and Respective Capabilities” (CBDR-RC). The leaders also deliberated phasing out coal, and strong contentious views emerged from this subject, further diverging the developing and developed countries.

The G20 for summit year 2022 was held in Bali Indonesia, with a backdrop of surging geopolitical tensions and attempts to recover from the pandemic-induced loss and damage. The Joint Environment and Climate Ministers’ Meeting (JECMM) identified multiple priority areas, namely sustainable recovery, supporting environmental actions, and resource mobilization for climate objectives. The JECMM acknowledged the contemporary socioeconomic realities amidst the pandemic.

The developments on Climate Change were further strengthened with an outlook of inclusive and sustainable growth. This summit broadened the horizon of discussion to address a more diverse set of sub-themes related to climate change such as extreme weather events building climate resilience among others.

In terms of adopting innovative and sustainable solutions, the group discussed the potential of circular economy, technology transfer, integrated and resilient resource management, and sustainability of supply chains in various contexts.

One of the prominent themes which emerged in this year’s debate was Food Security and its links with Climate Change, as envisaged in the Matera Declaration. Energy was also featured as one of the prominent and continued subject matter, and its geopolitical context was acknowledged, towards the same objectives, the Bali Compact and the Bali Energy Transition Roadmap were conceived to strengthen progress on sustainable energy.

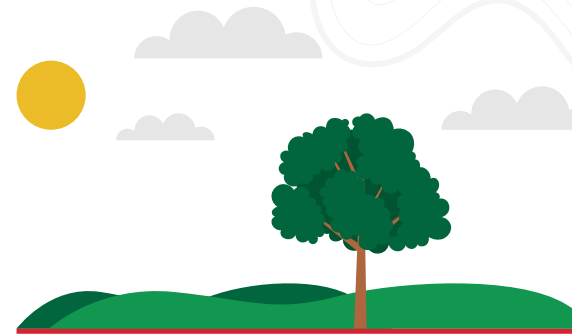


One of the notable developments in this discussion was the explicit acknowledgement and discussions on the Nexus of Climate change with multiple SDGs 6 and 7, 12. The group also discussed the aspects of Climate financing in the context of upcoming themes and sources, which was an explicit consensus and progress on the objectives of the UNFCCC, Paris Agreement, and the Glasgow Pact. Moreover, this also signifies the due cognizance of the principle of Common but Differentiated Responsibilities and Respective Capabilities.

The recognition of the above principle also depicts a significant shift in favour of the global south in the climate-related dialogues, making the leadership of the Global South a noticeable pattern. Countries like Mexico, India, Indonesia, Argentina, and South Africa appeared more aligned with the drive to reach an inclusive and decisive agreement. The element of South-led deliberations can also be seen in the inclusion of themes relevant to these emerging economies in the Leaders' declaration, and the call for developed countries to deliver on the Climate Financing Goals.

The 2023 G20 summit was held under the Indian Presidency and this year at the G20 remained notable for many reasons. First and foremost, the spectrum of issues addressed under the Indian Presidency was highly relevant for the developed and developing world alike. On the climate front, the years of discussions and debates were aligned and consolidated into substantial outcomes, implying cementing the Climate-economy nexus. The collective consensus on the Paris Agreement was not only conceded to but was also incorporated. It also cemented the Global South as the leader in the Climate Movement.

The inclusivity of varied aspects relating to Climate Change, leading to a systematic and structural change in building resilience marked the central idea of this summit. The overall outcomes can be said to be forming a blueprint for the Green Development Pact, which provides comprehensive attention to Climate Change from multiple focal points. These outcomes can easily act as a foundation for future instruments, provided the underlying unanimous consensus without footnotes (Argus Media, 2023). Moreover, the components of this pact are action-oriented, marking higher potential for scalability and implementation (Kant A. & Upadhyaya P, 2023).



The inclusivity of varied aspects relating to Climate Change, leading to a systematic and structural change in building resilience marked the central idea of this summit. The overall outcomes can be said to be forming a blueprint for the Green Development Pact, which provides comprehensive attention to Climate Change from multiple focal points.

The themes of these commitments varied across sectors. The leaders agreed to achieve Net Zero GHG Emissions by 2050 in cognizance of the scientific progress and national capabilities. While the specifications regarding phasing out of the fossil fuels (prominently coal) remained ambiguous and challenging, the eagerness of members to attain a successful stocktake at the COP28 was a sublime outcome. The deliberations on nationally determined contributions and targets related to the same aligned with Article 4.4 of the Paris Agreement were conducted with emphasis on national circumstances. Tripling Renewable Energy Capacity by 2030 marked another ambitious target along with a commitment to renovating technology to move towards green energy. Accelerated, inclusive and resilient growth was part of the vision at this summit with a focus on structural transformation. (G20 2023)

The discussions on Sustainable Climate Finance were particularly relevant this year as the G20 acknowledged the need to revisit the existing structures and roadmaps along with a tangible amount proposed and agreed upon. Under similar discussions, the summit also addressed policy tools for sustainable consumption and pushed for High-Level Principles. On plastic pollution, gradual phasing out was proposed as a viable solution.



Primary Pillars of the Green Development Pact



Climate Negotiations in the UN

The United Nations is probably the most prominent platform for Climate negotiations and has been able to deliver a plethora of legally binding and non-binding instruments. Due to the members' spectrum and support of specialized agencies, the UN has steered the climate-related discussions frequently. It is under the UN leadership that the most effective outcomes were achieved, and thus the scale and scope of discussions related to climate are vast. In this report, since our focus is to trace the trend, for the sake of brevity, we will selectively analyze the most relevant developments in the Climate Change Framework and discussions, only examining key developments.

To understand the present context of the themes and nuances of Climate Change, it is important to consider the historical background of these negotiations. The major climate negotiations emerged in the 1980s under the leadership of the European Union mostly, which culminated in the adoption of UNFCCC. During such negotiations, the push for binding emission reduction targets was mostly coming from the European countries, while countries such as the USA were resisting the concept of binding commitments. (Clémentçon, 2023)

The change in these stances came gradually in the coming years after accommodating the “flexibility mechanisms”, and the better alignment on these commitments led to the Kyoto Protocol, which put forth a joint commitment by developed countries to combine GHG reductions by at least

5%

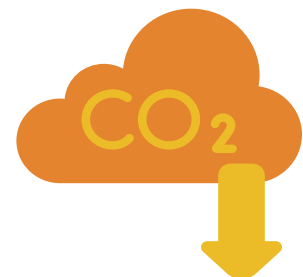
(below the 1990 levels),

among which the EU set a target for

8%

and the USA opted for

7%



The Kyoto Protocol enshrined the principle of “Common but Differentiated Responsibilities”, which essentially entailed that the developing countries were exempted from specific emission targets. This framework put the developed countries in a position to lead the emission reductions and the developing countries could follow, reflecting adherence to the broad working of the Montreal Protocol. (Clémentçon, 2023)

The Kyoto Protocol allowed a wide range of Carbon Offsets with consideration to a number of factors like forestation, carbon trading etc diluting the burden on countries to reduce the emissions in an absolute sense allowing set-offs. This mechanism allowed reductions possible in eclectic ways and thus received more participation. This also set the path for collective efforts towards reducing the overall emissions while also accommodating the domestic policy priorities.

However promising, rifts started to emerge within the agreement on the efficiency of the Kyoto Protocol from 2001, wherein **despite it coming into force in 2005 after the required number of members ratified, many key parties such as the USA, Australia, Japan, and Russia stepped away from the agreement. European Union remained a committed participant and moved to regulate the emission trading mechanisms with a mandate to attain and enforce the objectives of the Kyoto Protocol.** There was a general line of thought emerging against the emerging economies from the developing world which were causing significant emissions and yet had no binding commitments under the Kyoto Framework. Although many estimate that the domestic pressure from the fossil fuel industry in the nations which stepped away was the main reason for opting out of the Kyoto Protocol, the impacts of these developments, especially those of failures of these nations to fulfil commitments, can be seen in the climate-related discussions till date.

Till 2012 the Kyoto Protocol was in force, and till then the developed and developing countries kept negotiating on their respective point of view and differences in the framework. The Kyoto Protocol couldn't be extended beyond 2012, despite considerable support from the EU. The bloc of developed countries expressed the need for a framework which entails binding commitments for all the countries, especially India and China. (Clémentçon, 2023)

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Building upon these developments, the Paris Agreement was negotiated in the background of diverging blocs. While the agreement could not reflect the desirable level of outcomes, it remains a significant achievement in the normative sense for the agreement on halting the temperatures below 1.5 Degrees to the pre-industrial levels, with inculcation of new mechanisms. The small island nations emerged as key parties to bring down the temperature limits to 1.5 from the earlier agreed 2 degrees showcasing effective negotiations. The Paris Agreement is prominently remembered for the political reassessments of the Climate change. In terms of legal force, only a few outcomes were legally binding while necessitating domestic actions to bring down emissions were out of the mandatory provisions. (Cléménçon, 2023)

The Paris Agreement devised a new mechanism called Intended Nationally Determined Contributions (INDCs), where countries were to submit domestically assessed targets every

5 years.



This was created as a mechanism to create a continued loop of accountability by necessity to communicate their targets, implementation, progress, and reviews on the emission reduction targets. This mechanism took the equity component out of Climate negotiations as the INDCs were a mandate for all the parties. The Paris Agreement focuses more on adaptation and resilience. (Cléménçon, 2023)

The following year at Marrakech was focused on operationalizing the Paris Agreement and capacity building, and this year also oversaw the approval of the Warsaw International Mechanism for Loss and Damage Associated with the Climate Change Impacts.

In 2017, at Bonn COP, under the presidency of Fiji, the Talanoa Dialogue was launched to track the collective progress of the INDCs and its alignment with the Paris Agreements. In the COP at Katowice in 2018, a Climate Package was adopted which concluded the Paris Agreement Working Work programme providing a common interpretation and implementation of the Paris Agreement. The 2019 COP at Madrid mostly focused on operationalizing finance-related mechanisms such as The Green Environment Facility, and the Green Climate Fund. (IISD, 2021)

The review of the INDCs submitted under the Paris Agreement was delayed due to the Covid-19 pandemic and it could emerge as an actionable agenda in COP26 of the UNFCCC in 2021 convened at Glasgow. The completion of “the Paris Rulebook” was also one of the primary agendas in this meeting, along with the issues related to the reporting of the INDCs. With regards to the substantive outcomes, Climate finance stood out as the developed countries agreed to double adaptation finance by 2025 (to 2019 levels). There were other significant outcomes on Land use and methane emissions, while the central focal point of NDCs remained pessimistic as the parties

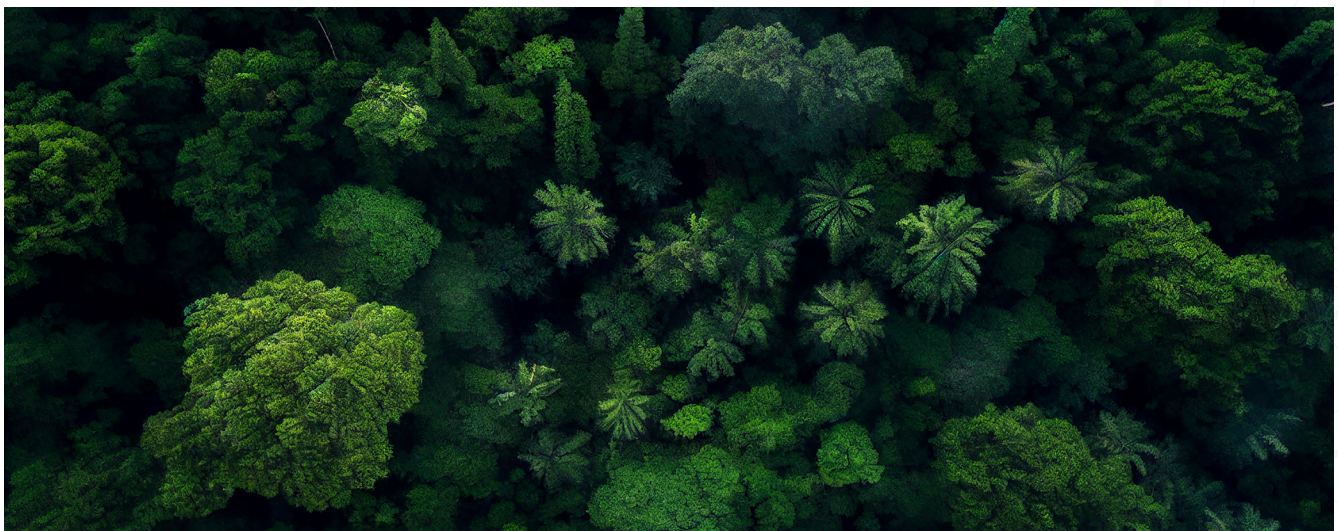


which submitted the NDCs accounted for around 49% of the Global GHG. It was analyzed that at the rate of commitments, the average temperature rise would be 2.7 Degrees by 2100. (IPCC 2021) The COP 27 at Sharm-El-Sheik in 2022 was focused on examining the commitments and their efficiency in attaining the targeted emission reductions. This COP stands important from the point of view of procedural clarity on multiple questions, yet there was no significant political outcome on emissions reduction efforts to keep the temperatures below 1.5 Degrees. (IISD 2023)

The most recent COP28 was convened in Dubai in 2023 and marked some tangible and significant outcomes as it attained the conclusion of the first Global Stocktake under the Paris Agreement. It also brought the insufficiency of efforts to address Climate Change, leading to a call for accelerated actions across areas by 2030, including a transition in favour of renewable energy.(Worth K., 2023) On the Climate Finance Front, the parties decided to establish a new fund totalling USD 661 focused on loss and damage, following up on the outcomes of COP27. In a major development, the parties reached an agreement on the Global Goal of Adaptation focused on resilience, along with outstanding enhancements in the pledges to the Green Climate Fund, Adaptation Fund, Special Climate Change Fund, and the Least Developed Countries Fund. While increased financing of these funds is positive, the COP agreed that the current funding from various sources is not sufficient to finance the efforts to address the Climate Change. The Parties agreed a first, to conjoin the climate change and biodiversity crisis, recognizing the interlinkage of the two, aligning the objectives of UNFCCC and UNCBD. (Worth K., 2023)



In a major development, the parties reached an agreement on the Global Goal of Adaptation focused on resilience, along with outstanding enhancements in the pledges to the Green Climate Fund, Adaptation Fund, Special Climate Change Fund, and the Least Developed Countries Fund.



The Relationship between the Climate Discussions at the G20 and UN

In 2023, the G20 Leaders' Declaration agreed to a broader framework called the Green Development Pact, marrying various aspects of Climate Change to align different areas and address the issues with regard to its impacts. The COP28 at Dubai deliberated and built consensus on the interlinkage of similar ideas, with specific mention to emerging economies (a central theme of the 18th G20 Summit). The 17th G20 summit at Bali put forth Energy transition as a key priority area to address climate change, while the COP27 decided to address the efforts towards Climate change as a whole. These instances provide contrasting scenarios between the co-relation between two multilateral forums. This section analyzes the nuances of the relationship between the UN and G20 as it is an insightful discussion to align the deliberations on Climate Change.



The G20 and Climate Change

The individual members of the G20 have not attained significant milestones in terms of emission reductions, even as the group as a whole represents nearly three-quarters of the total Global emissions. **It is notable that the coincidence of the UN Climate summit at the leader's level significantly and positively affects the compliance on the part of G20 on climate change commitments. To substantiate, the Pittsburg summit witnessed a remarkable 93% compliance, while in 2015, the compliance was 85% with the conclusion of the Paris Agreement in the same year. The G20 Research Group assessed the overall compliance level to the 47 commitments by the G20 at 67%. (Warren, 2021)** To explain the above, while G20 was conceived as an economy-centric platform, it was quick to assess the interlink between Climate Change and Economic health. This realization led to commitments such as "Phasing Out" inefficient fossil fuels, which promise significant progress on climate change globally if complied with.



02.

**Poorer today
vs hotter
tomorrow**

With the present 1.5-degree temperature rise, extreme weather events will be fourfold in frequency, depending on location in terms of severity, which will be unprecedented for the previous generations.

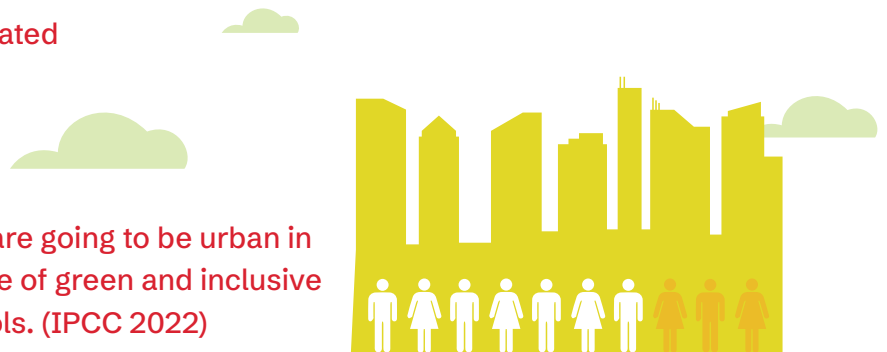
Having traced the developments in Climate-related conversations at G20 and under the framework of UNFCCC, we can conclude that Climate Change as a global challenge is beyond the capacity of any one group of nations to address, while the effects of the Climate Change also have a wide range of implications across the globe. This raises the question of the efficacy of the measures adopted at present to address climate change across the spectrum of prevention, mitigation and adaptation. The previous emissions have brought a rapid avalanche of changes which appear drastic in their potential to disrupt the lives of present and future generations. To some extent, these changes are unavoidable since the causal factors have already been put in the atmosphere. The scientific community has concluded and political leadership has conceded that if extreme actions are not taken now, the lives of the next generations could be faced with unprecedented challenges and fewer scope options to address those challenges.

Since the inevitability of the Climate change related impacts is no longer a contentious matter and has the consensus of all the stakeholders, the shifts in policy instruments arising from the deliberations at present have to be more modular in their applications, and with the ability to address the aspects of rapid challenges arising due to the climate change.

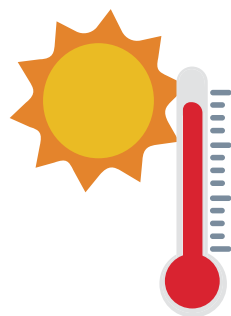
For example, it is estimated that by 2050 nearly

70%

of human settlements are going to be urban in nature, creating a space of green and inclusive urban development tools. (IPCC 2022)



Before we address the utility of these tools, let us also analyze why the action on climate change is essential at this point, and what the future would be like if these measures are not taken.



The exposure to heat-related stress is estimated to increase between

48% to 76% from the **30%** current

resulting in less suitable conditions for outdoor workers. In event of the 4 Degrees temperature, the suitable working days for outdoor jobs will reduce to 100 in tropical and sub-tropical regions, which includes parts of Asia, Africa and South America. (Amoadu et al., 2023)

It is pertinent to note that these regions already host in a substantial part of developing and low-income countries. The negative effects on food production would be disastrous for these regions, which will be difficult to mitigate at those later stages.

With the present 1.5-degree temperature rise, extreme weather events will be fourfold in frequency, depending on location in terms of severity, which will be unprecedented for the previous generations. The Eastern, Southern and South-Asian regions remain particularly vulnerable to the harms of rising sea levels, which also comprise of countries hosting high numbers in terms of population. The rising sea levels are bound to cause conflicts affecting millions of people due to forced relocation and may result in even higher incidents of unplanned urban settlements such as slums.

At present,



most vulnerable countries in terms of rising sea levels are low-income countries. (WID 2023)

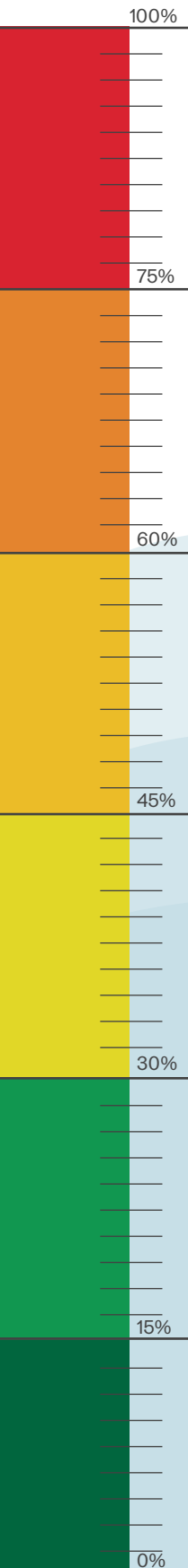
On the front of Food and Water security, at 2-degree rises in temperature, around 3 billion people are vulnerable to the hazards of chronic water security and droughts. (IPCC 2022) These water-related challenges will be starker for the regions of South America, and the regions dependent on the glacial water systems. Hurricanes will be more frequent and intense with heavy rainfalls causing flooding in the Central American Regions. (WID 2023) The overall incidents of heatwaves and droughts combined have already tripled compared to the last decade.

Agricultural systems across the world will face challenges as climate change will affect food production.

The present productivity of agricultural activities is nearly

20%

lower than the estimates in a scenario leaving out the negative impacts of climate change. (WID 2023)



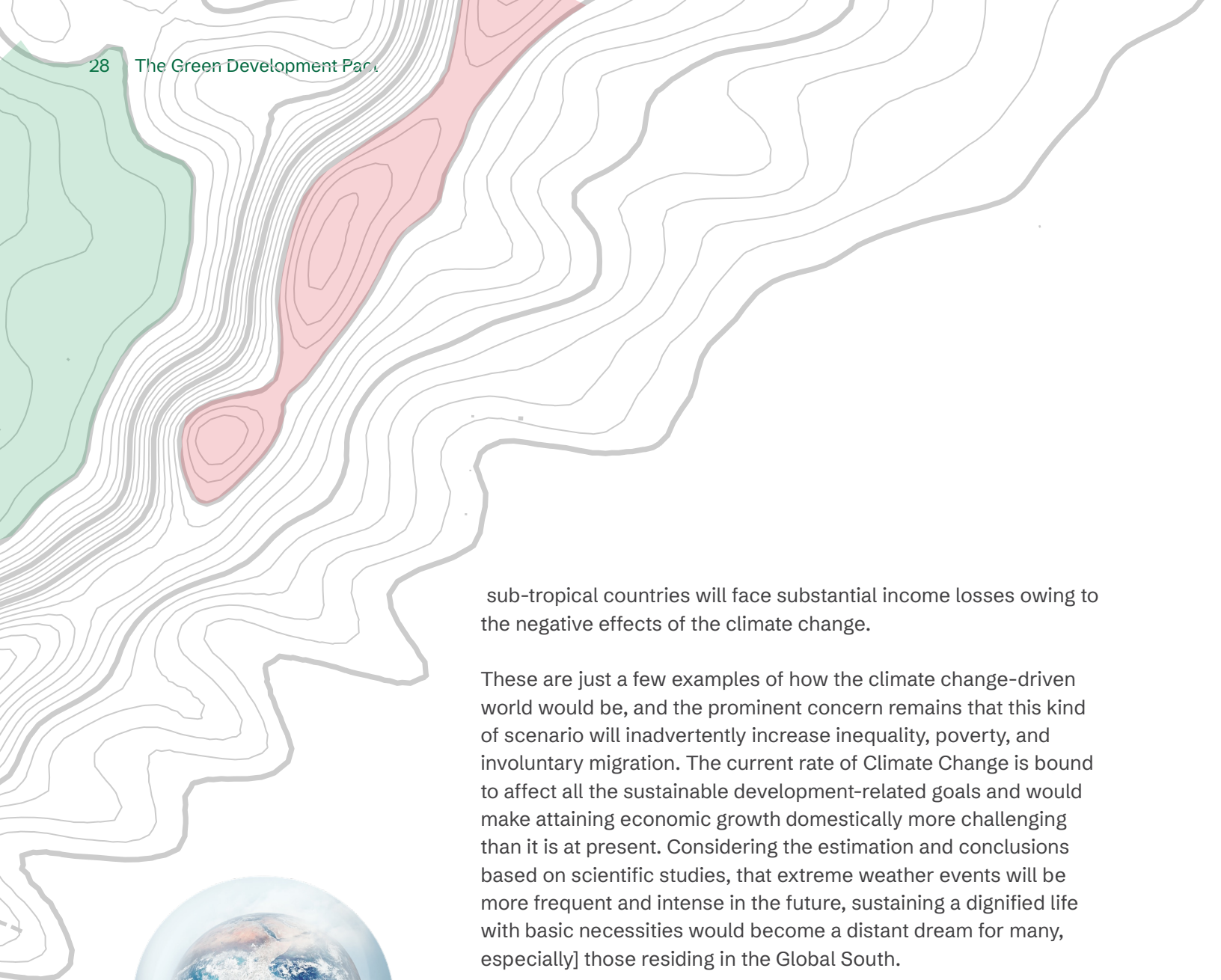
As the average temperatures rise, the sustaining capacity of agricultural activities will become increasingly difficult to retain. There will be implications for all activities related to food production including growing, transporting and storing food. This will affect the poorest sections in more severity, leading up to 80 million people suffering from hunger in 2050 with higher incidents of hunger in Africa, South Asia, and central Americas, regions already affected negatively by hunger. The instances of malnourishment and undernourishment are also bound to increase in high-warming scenarios leaving nearly 183 million individuals by 2050, most of whom will be located in low-income countries. The younger population will see more instances of stunting, making Africa particularly vulnerable, considering it hosts the largest fraction of the young population.(WID 2023)

The younger population in future will face higher mortality due to climate change owing not only to the extreme weather events but also an impact on healthcare as climate-sensitive diseases will pose greater risks. Again, low-income countries remain vulnerable to unequal exposure to diseases, especially from communicable infections. There is a visible increase in the incidents of Zika Virus and dengue fever, and as the climate changes, there will be a higher number of malaria infections in the near future. It is notable that these incidents are most likely going to affect low-income countries as the high-income countries have not witnessed any significant shifts in the rate of infections at present, putting an additional healthcare cost on the already poorer regions. However, a geographical expansion of these diseases is likely to occur as climatic conditions change. Tropical diseases and waterborne diseases are also estimated to rise significantly. As climate change worsens the conditions and living standards of the poor regions, a mental health crisis is likely to occur in these areas, probably leading to significant loss of life to suicide. (WHO 2023)

On a macro level, climate change is leading to GDP losses causing a greater right in the inter-country inequalities. According to Diffenbaugh and Burke (2019), the high-income countries with the largest responsibilities for climate change have benefitted from the income patterns induced by climate change, while the low-income countries with lower historical and current emissions are poorer today compared to the levels of income estimated if the effects of climate changes were absent. In the coming years, tropical and

A geographical expansion of these diseases is likely to occur as climatic conditions change. Tropical diseases and waterborne diseases are also estimated to rise significantly.





sub-tropical countries will face substantial income losses owing to the negative effects of the climate change.

These are just a few examples of how the climate change-driven world would be, and the prominent concern remains that this kind of scenario will inadvertently increase inequality, poverty, and involuntary migration. The current rate of Climate Change is bound to affect all the sustainable development-related goals and would make attaining economic growth domestically more challenging than it is at present. Considering the estimation and conclusions based on scientific studies, that extreme weather events will be more frequent and intense in the future, sustaining a dignified life with basic necessities would become a distant dream for many, especially those residing in the Global South.



The above discussion on the impacts and vulnerabilities related to Climate Change, the discussion needs to move towards action. We have discussed the developments at the UN under the UNFCCC framework, and the G20.

However, from the above discussions on impact, it is clear that the Global South remains more vulnerable to the negative effects of Climate Change. Despite all the rifts in the normative discussion relating to the responsibilities of climate change, the fact remains that the developing world and low-income countries are faced with the dilemma of having to work on economic growth and building climate resilience and mitigation simultaneously.

Attaining the outcomes in such a situation of competing priorities can be extremely challenging, causing divergence from the action-oriented approach towards Climate Change.

The developing nations need more support in finding viable options for sustainable emission reductions in the short, mid, and long term. Having lower income levels than the developed countries, the per capita emissions of most of these countries are below the industrialized developed nations. The economic growth leading to better living standards costs emissions and often this concern of these countries is perceived as resistance to take action against climate change, causing many of the developed countries to walk backwards on their emission plans. The capacity building and enabling these countries to balance growth and emissions is relatively recent in the Climate Change deliberations.

The various nuances related to the actions against climate change need a much broader approach today than an account of net emissions. While there are benefits to emission reductions, developing nations stand vulnerable to face inequality and lower growth in both scenarios. If they slow down the growth today by substantially reducing the emissions, the quality of life would be severely affected, and if they take no action on emission reduction, they will face the consequences of a warmer earth regardless. There is also a more obvious carbon inequality, where the patterns of consumption of a relatively smaller group do not correspond to estimated average emissions, leading to a disproportion.

However, the GHG emissions of developing nations are estimated to surpass the GHG emissions from developed countries by 2050. In absolute terms, the emissions are still rising at a rapid rate, regardless of the source. (UNEP 2023) Hence the net emission tracking alone is not the road to resolving the climate crisis. A more holistic approach is needed where the world can take action to halt climate change without compromising on life quality. This is where the concept of sustainability in efforts comes in, which stands for the adoption of those practices which can be continued in the long term with the least negative externalities,



rather than highly effective methods without the potential to be continued for the long term.

With sustainability coming into the mainstream discussions related to Climate Change, it is becoming more clear that growth might not always necessitate compromise on the climate. (WID 2023) The Carbon Footprints needed to eradicate poverty, and the actual carbon footprints at present do not reflect agreement with each other, signifying complexities while aiming for climate change-related issues.

It is estimated that the carbon emissions needed to address poverty are one-third of the total carbon emissions today. (Wollburg 2023)

One-third

of the total carbon emissions needed to address poverty.



Moreover, the measures and costs of adaptation to a warmer environment might exceed those required to mitigate warming, making decoupling of economic growth and climate change actions more difficult.

In the domain of environmental justice, the arguments related to the role of developed and developing economies have been much elaborated in the past. The insistence on taking into account historical emissions has as many merits as controlling the current emissions to certain levels. The world is past the point of determining the question of responsibility, and thus the address of climate change needs the participation of all the countries to their full capacities while taking note of the inequality in impact. The majority of emissions are released by activities catering to a small portion of the population, for example, nearly half of the carbon emissions are attributed to the global top 10% of the population. (Oxfam 2023) The average emissions of an individual residing in the USA are 10 times more than the average carbon emissions of an individual living in India (IMF 2021). **North America exceeds the Paris Agreement targets by more than 10 times, while the South and Southeast Asia have higher emissions yet it remain within the reach of Paris Agreement targets. The only region which has the average emissions per capita in accordance with the 1.5 Degree target is Sub-Saharan Africa. (WDI 2023)**

Acknowledging the fact that climate change and its negative effects are unavoidable, we must now address the capacity aspect. While the effects of climate change are universal, the capacity to build resilience and the preparedness to mitigate these impacts has a great inequality factor in terms of regional distribution. With low-income countries situated in more vulnerable locations with a higher likelihood of exposure, inter-country disparities in capacities are bound to arise. The future vulnerability of these countries also stems from the present level of life standards. For example, poor countries are more likely to have a large number of low-quality housing and assets thus more prone to damage during extreme weather events. Hence, similar or even the same weather events will affect different income groups differently.

The resilience of an economy at a macro and micro level is determined by various factors such as quality and dependency on the assets, the interlinkage between the consumption pattern and robust income sources, social security and insurance, etc. Studies show that low-income households are more exposed to climate-related risks (Narloch & Bangalore 2018) because of the material nature of assets as opposed to intangible assets in high and medium-income countries. Thus there is a direct link between financial resources and the capacity to mitigate and adapt to the impacts of climate change (Hallegatte et al 2018) causing a higher and robust financial inclusion to be one of the important factors in determining the climate change-related vulnerability.

While it appears to be a paradox where both the negative impacts of climate change are linked circularly, this cycle can be altered as some examples have shown. The low-income countries have to address the issue of financial inclusion and personal wealth, the tools like social security and public transfers have shown promise in mitigation and adaptation.

The target revision is a worthy consideration primarily but not restricted to the large historical emitters, with built-in support mechanisms for low-income countries. However, the present framework appears to have an inconsistent pattern in terms of moving towards the objectives of halting climate change. The commitments made under the Paris Agreement in 2022 indicate that the world would witness a 2.6-degree rise in temperatures by 2100 at best. (Cléménçon, 2023) Among these commitments, the targets listed under the category of “Conditional” are dependent upon climate



Poor countries are more likely to have a large number of low-quality housing and assets thus more prone to damage during extreme weather events.

finance support leading to the debate of capacity and historical responsibilities, since the Climate Financing framework has very few specifications. (Clémençon, 2023v)

A visible shift can be seen in the language opted for in the UNFCCC COP discussions, prominently since 2021, where the members faced difficulty in arriving at conclusions. (Clémençon, 2023) Although the final and adopted text reflected the goal of keeping the temperatures below 1.5 degrees, the subsequent COP in 2022 added less than expected value to the debate, as it did not work out any tool to halt the temperatures at 1.5 Degrees.

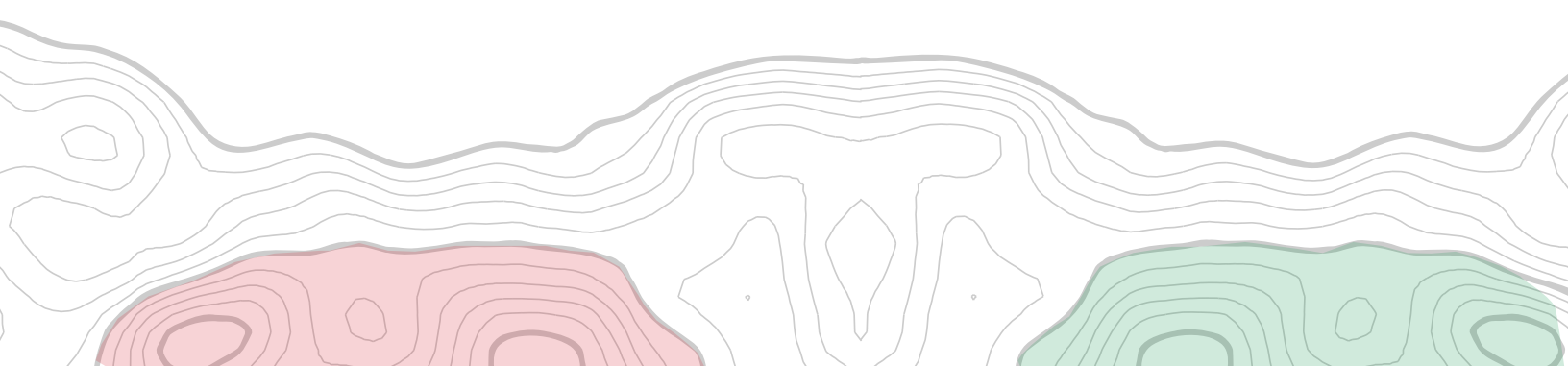
The phasing out of coal, the most harm-causing fossil fuel, appears to be a distant dream as in 2022 the global Carbon Dioxide emissions were particularly high. The subsidies to fossil fuels doubled in 2021, compared to in 2022. (Clémençon, 2023)



To keep the temperature increase to 1.5 degrees, it is essential that by 2030, energy production using coal be closed without the establishment of any new units, on which use of the term “Phase Down” in place of “Phase out” may slow the progress. In Climate Financing, a “Loss and Damage Fund” dedicated to supporting developing countries particularly vulnerable to Climate Change remains highlighted among the outcomes. (Clémençon, 2023v)

These trajectories show that while the Climate change-related nuances are urgent and need to be addressed in a mission mode, it also [presents an opportunity to reorient the policy tools towards resilience for future challenges. Considering that the impacts of Climate Change however inevitable, are still unpredictable in terms of compounding and interlinkages. Moving in the direction of a net zero economy requires a broader approach and holistic policies aimed at both symptoms and causes of climate change. Having said that, climate change needs to have an equity component in light of the equality in terms of warmer and highly unpredictable weather events. The need to reinvent the CBDR principle with better allocation of duties and rights among the stakeholders, combined with a bottom-up approach.

The concept of historical responsibility has gradually received less emphasis over the years in favour of future responsibilities. The dichotomy of developed and developing countries prevents the institutionalisation of the CBDR principle, leading to divergence, and hindering an inclusive discourse. (Cullet, 2021)







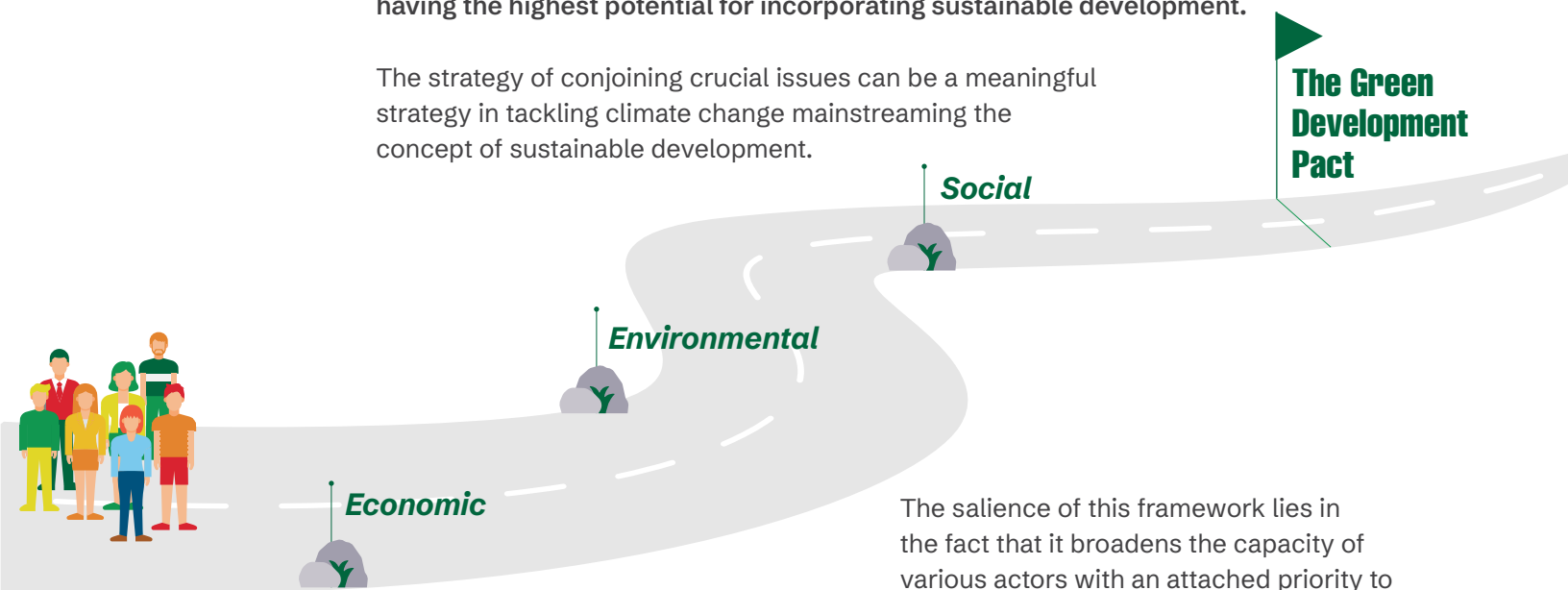
03. The Green Development Pact

The Green Development Pact under the Indian Leadership accounting for economic and environmental growth can be a promising example of “sustainability by design”.

There is a consensus among stakeholders regarding the need for swift and concrete actions on Climate Change. This urgency can be seen in different forums ranging from the scientific community to multilateral forums. As we have already discussed in the previous chapters, the G20 2023 Summit had some optimistic outcomes towards shifting focus on sustainable efforts to address Climate Change.

The Green Development Pact was proposed as a roadmap to take action on Climate Change in a sustainable way with maximum participation. It is being viewed as a comprehensive framework under which multiple aspects of climate change can be combined and aligned, instead of addressing each issue in silo. **The major foundations of this roadmap lie in the social, environmental, and economic realities of the world having the highest potential for incorporating sustainable development.**

The strategy of conjoining crucial issues can be a meaningful strategy in tackling climate change mainstreaming the concept of sustainable development.



The salience of this framework lies in the fact that it broadens the capacity of various actors with an attached priority to take action on climate change while being

mindful of the disparities. This way, all the actors have the opportunity to materialize some ambitions as per their priorities leading to a collective and overall improvement on Climate Related Goals.

The urgency of countries to address climate change is by reinventing ambitions, actions, and priorities, and the years of deliberations and negotiations have indicated a need for innovation in the approach to climate change. This led to discussions on a better and less harmful way to act on the challenges related to nature, and soon the concept of sustainable development materialized in the discourse related to climate. The very foundation of sustainable development can be found in balancing the competing interests of economic, environmental, and social needs with due consideration to the

needs of the present and diligence for the needs of the future. It also has the concept of longevity ingrained in it implying that the policy tools be formulated as an evolving instrument to address the needs beyond the immediate demands.

The Green Development Pact under the Indian Leadership accounting for economic and environmental growth can be a promising example of “sustainability by design”. Soon after assuming the presidency of G20, Climate and environmental sustainability were put forth as one of the core themes. As the discussions progressed, the emphasis was maintained on the urgency of a cross-sectoral approach and adaptation. This also represented a more inclusive approach, marking the concerns of the developing world on the shortage of resources to take action on climate change.

The Green Development Pact is conceived as an umbrella structure, which enshrines multiple aspects under its scope, which can be categorised into some broader headings. These range across Macroeconomic risks stemming from climate change and transition pathways, Mainstreaming Lifestyles for Sustainable Development (LiFE), Designing a Circular Economy World, Implementing Clean, Sustainable, Just, Affordable & Inclusive Energy Transitions, Delivering on Climate and Sustainable Finance, Conserving, Protecting, Sustainably Using and Restoring Ecosystems, Harnessing and Preserving the Ocean-based Economy, Ending Plastic Pollution, Financing Cities of Tomorrow and Reducing Disaster Risk and Building Resilient Infrastructure. It is different from most previous instruments compounding multiple aspects in a collaborative manner while providing the way to a green and collective path. The five themes are assessing and expanding on these key themes of the Pact becomes essential to better understand its utility and vision.

On Climate change commitment, the Green Development Report expressed its agreement on the urgency required in taking action on climate change while taking cognizance of the rapid impacts being felt worldwide. It also duly acknowledged the inequality in exposure to these extreme weather events. It identified Low-income countries and small island developing states as most vulnerable to the impacts of climate change. It affirmed consensus with the objectives of the Paris Agreement reiterating the need to arrest temperatures well below 2 Degrees and limiting it to 1.5 Degrees (compared to the pre-industrial levels).

In furtherance of the same, the members went ahead to call for “rapid and deep” GHG emission reduction targets while proposing a quantified goal. The pact calls for a specific 43% reduction in the GHG emissions (compared to 2019) solidifying and operationalizing its agreement with the Paris Agreement. On the Nationally Determined Contributions, the members agreed to revisit and strengthen their respective NDCs for better adherence to the objectives of the Paris Agreement by 2023. It proposed an innovative



idea of implementing economy-wise reduction targets, to bring specificity and comprehensiveness in the compliance framework of the Paris Agreement.

In the past, India has been making progress in the domain of renewable energy and the experience is well reflected in the Green Development Pact as well. The report indicates the necessity of aspiring for the clean energy transition as an essential part of addressing climate change. While the contentious topic of phasing out fossil fuels was part of the discussions, the members did not let the difference affect discussions of another aspect of the Green Energy Transition—renewable energy. With due consideration to the need to maintain uninterrupted energy flows at international levels, it was agreed that low-cost financing should be prioritized and streamlined to enable developing countries to steer their transition to clean and green energy production. While interstate arrangements are important, the role of market forces in fostering access to such technologies can not be denied. In the same spirit, the members voiced consensus on the need to develop global markets for better access to technologies enabling green transitions.

A relatively new discussion was centred around the Clean Energy related Infrastructure. This component is aligned with mainstreaming the views of the developing world while

A relatively new discussion was centred around the Clean Energy related Infrastructure. This component is aligned with mainstreaming the views of the developing world while keeping in mind the ultimate goal of a clean, just, and affordable energy transition.



keeping in mind the ultimate goal of a clean, just, and affordable energy transition. It attempts to bring energy security across economies and geographies in-built with the upcoming infrastructures. The paths and examples to build clean energy infrastructures were specified in the Green Development Pact with certain successful case studies from around the world. The discussion offers many types of sources of energy-relevant to the developing world, such as Biofuel, Green Hydrogen to attain net success in transitioning to clean energy. In the same direction, the members also proposed High-Level Voluntary Principles and the establishment of the Green Hydrogen Innovation Centre under the supervision of the International Solar Alliance to create an ecosystem for hydrogen for all nations.



Sustainable Finance has been one of the most contentious points in the history of climate-related negotiations where reaching an agreement has been challenging. **Navigating the choppy waters of taking responsibility for climate change financially often becomes an orphan issue when it comes to translating commitments into actions.** Any conversation relating to addressing climate change today would lose relevance if it leaves out the financing aspects as the world is unequal in terms of capacity to take measures.

India hailing from the Global South and being a developing country has its own experiences with attempting growth in economic and environmental aspects together. The G20 group has many developing nations which are spearheading the environmental movement today, thus the forum had an understanding of the nuances of climate financing. Thus the 2023 summit, while attempting to reach an agreement on the Green Development Pact ensured the inclusion of Climate finance as an important and substantial point, lending it the much-needed focus.

The improvement here from the past discussions was the inculcation of the Sustainability aspect while addressing Climate Finance. The members emphasized that the finances needed must not just be in terms of volume but should also be dedicated to supporting the most efficient and promising measure, with the needs of vulnerable communities in mind. The cope of climate finance under the Green Development Pact was broad as it included improvement in the funding for all the SDGs, inclusive of the transition to clean energy.



It reiterated the need for

\$4-6 trillion

annually for the worldwide transition to a low-carbon economy, with developing countries exclusively in need of around one trillion USD.

The forum focused on diversifying the sources of funding as it recognized the importance of both public and private sector funding with an elaborate explanation of the niche each can carve in the climate actions. While the public sector can be important in generating policy levers and modifying market signals, it can also encourage private investment by incentivization. The private sector investments in climate actions are a potential solution to allow states to realign their finances as per domestic policy priorities, yet at present it has not reached the desired level in reality. The reason could be the perceived risks related to market and macroeconomic conditions.

This challenge opens up an opportunity to streamline climate financing into an innovative and blended model including the use of public finance to mobilize private and philanthropic funds for overall sustainable development. The blended finance models offer the opportunity to access resources and balance risks to stimulate investment. Risk distribution and sharing is an important feature of this model as it could increase the role of multilateral institutions as well. The G20 Sustainable Finance Roadmap establishes the need for greater roles of Multilateral Development Banks and other international institutions to support SDGs by mapping the blended finance model.

There are many other policy recommendations made in the outcomes of the G20 2023, which have greater practical utility for the states to channel finances using multiple policy tracks and identified focus areas. The discussion also included compendiums on the experiences of multiple countries to guide crafting instruments to address climate change in a sustainable manner optimizing capabilities.

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The Green Development Pact continued with the legacy of earlier summits such as the Bali Summit's focus on Oceans as a whole, leading to a comprehensive discourse. The coverage of ocean ecosystems and ocean economies makes the developments under the Green Development Pact more significant. One of the examples of the milestones under the pact was “Chennai High-Level Principles for a Sustainable and Resilient Blue/Ocean-based Economy” which was passed unanimously at the G20 ministerial meeting of Environment and Climate Ministers. These principles include multiple principles which can be used as building blocs to craft framework at national levels, leaving the scope open for accommodating domestic priorities and circumstances. These principles were accompanied by a compendium of best practices and documents containing inputs on various themes including the blue economy.

The salience of the discourse under the pact lies in marrying the domain of Blue Economy and Ocean Ecosystem health, giving a constructive direction to the previous discourse where these were dealt with in silo. These themes remained as subthemes to other discussions like sustainable development or biodiversity. The Blue economy appeared as a priority agenda point for the first time at the G20.

The 9 Chennai principles put emphasis on the core aspects of the “Blue economy” comprising of preservation of coastal and marine environments, while the 6 principles are envisioned as key enablers to sustainability in the blue economy. Interestingly, these principles also call for greater alignment between the aspects of the blue economy and other instruments and frameworks like UNFCCC. These principles seek to address climate change, pollution, and sustainable development via a blue economy.

The interlinkage between the Blue economy and climate has been highlighted and acknowledged, while also a suitable linkage is provided to the impact, mitigation and adaptation aspect of oceans. This indicates the integrity of ecosystems, and climate as a whole, providing a better range of measures to address multiple issues at once. It emphasizes inclusivity and envisions the participation of all the stakeholders, and international cooperation, while also recognizing the importance of combining modern science with traditional knowledge.



The familiarity of the elements in this framework may vary as some of the principles may have already been inculcated in other areas such as biodiversity conservation. The importance of the framework proposed under the Green Development Pact is in the fact that it paves the way to unionise the various national policies governing the oceans and blue economy with a lens of sustainability. The very concept of the Blue economy has not been conceptualized in a framework in the national jurisdictions before, leaving fragmented policies regulating the oceans and coastal areas. The Chennai principles can leverage the generation of national frameworks and strategies with sustainability at core while balancing economic growth and environmental protection together.


India's presidency of G20 coincided with the mid-point of the Sendai Framework for Disaster Reduction. Disaster management has been among one of the most prominent themes in the discussions addressing Climate Change, as it corresponds to the aspects of adaptation and mitigation. **As the world becomes more prone to natural disasters, the risks posed also deepen in terms of the horizontal and vertical impact on various facets of life. Interestingly, the risks related to climate disasters are increasing at a higher rate than the economic growth, negating the net developmental gains.** Hence disaster risk reduction becomes an essential point to discuss within the climate change-related dialogue.

Consequently, the 2023 summit addressed Disaster Risk Reduction as one of the central issues to address how to catch up to the fast growing risks. The outcomes of the 2023 Summit have built up on the years of work and experience. The outcomes of the discussions on the themes of Disasters identified and elaborated on five high-impact areas in total, covering the large range of the risks.

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Among these themes, the Global Coverage of early Warning Systems is one of the important areas.

At the time of the beginning of the G20 2023 summit, nearly

50% 

of countries lacked multi-hazard early warning systems, exposing them to loss and damage. Recognizing this, the UN secretary called for Early Warning systems for all in 2022, which aimed at achieving coverage of every person on earth by 2027 under the warning systems, and which required nearly

3 Billion USD.

(UNDRR 2022) The DRRWG put the focus on the capabilities of the G20 countries across various aspects of the topic. It put emphasis on the components of knowledge sharing, technology transfer, capacity support, and mobilizing finances towards the objectives of DRRWG. India having the experience of successful implementation of early warning systems for cyclones and heat waves has led by example by assisting neighboring countries via information sharing.

The second high-priority agenda identified by the G20 members was the creation of Disaster and Climate Resilient Infrastructure to minimize or prevent the loss of lives and livelihoods to protect developmental gains.

The discussions on this topic indicate the mainstreaming of disaster risk management opening up the scope of discussions on standards, planning and governance of the resilience building activities. **The discussion remains highly relevant to the developing world as it is still in the process of building its infrastructure, and has an opportunity to build resilience into it, contributing to the overall efforts for sustainability.**

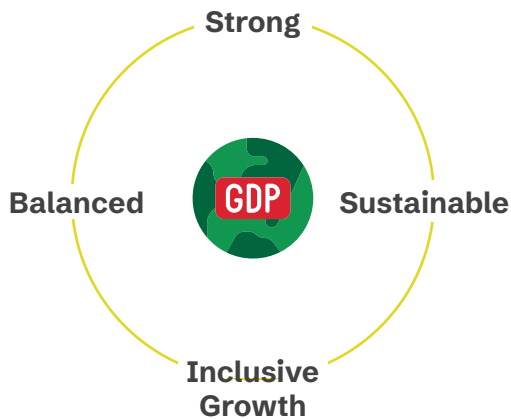
The third theme has witnessed some highly contentious debates as it addresses the Financing Strategies for Disaster Risk Reduction Climate Financing in general has been a contentious topic, and within that, the financing in disaster management is particularly low. The present underinvestment in disaster risk reduction has created implications for macroeconomic stakes making it a systematic financial concern. The DRRWG aims to address this aspect by encouraging member countries to create sound national financing frameworks, while due consideration to the needs of low-income and developing countries by supporting and enabling them. The collaborations among multiple stakeholders are also proposed as a means to broaden the horizons of financing.

The next and fourth theme is Disaster Recovery, Rehabilitation and Reconstruction which is seen as an opportunity to transform the process by adding the element of sustainability. By incorporating the Build Back Better principle enshrined in the Sendai Framework, the risk exposure overall and the vulnerability of populations can be effectively reduced.

The final theme is centred around the Nature-based Solutions and Ecosystem Based Approaches for Disaster Risk Reduction, which connects the component of traditional and community knowledge with the incorporation of tailor-made plans for different regions. As climate change and its impacts are closely connected, a multipronged approach would be appropriate to address these challenges, prompting the advocacy for this component in the Disaster Management Plans of countries.

Overall, the streamlining and combining of these elements make the Disaster Management Approach provided under the Green Development Pact more comprehensive. Keeping in view the inclusion of the African Union in G20 in 2023 makes it more relevant for the Global South.





Strong, Sustainable, Balanced, and Inclusive Growth (SSBIG)

is at the heart of GDP and as a concept, it has evolved to integrate different aspects into it from parallel discourse. There can be no better example of this integration than the discussion of Climate Change on the G20 forum which is primarily an economic platform.

This is much-anticipated development since the mutual impacts of the environment and economy are substantial. Developing on this overlapping area, the G20 summit in 2023 focused on the **Macroeconomic risks stemming from climate change and transition pathways** as an essential part of the Green Development Pact.

The macroeconomic risks related to climate change range across food production and energy security having the potential to create volatile fluctuations in the markets across the world. The experiences related to such fluctuations have indicated the need to stabilise the entire ecosystems related to these commodities as these can negatively affect the competitiveness and resilience of countries and communities. At the macroeconomic levels, the costs of adapting and mitigating the effects triggered by climate change are expected to be significant in terms of volume and frequency. These financial implications imply that climate action and sustainable transition today are likely to be more cost-effective than addressing the impacts tomorrow. To address these issues, in light of the increasingly interlinked nature of the global economies, international dialogue and cooperation are of paramount importance.

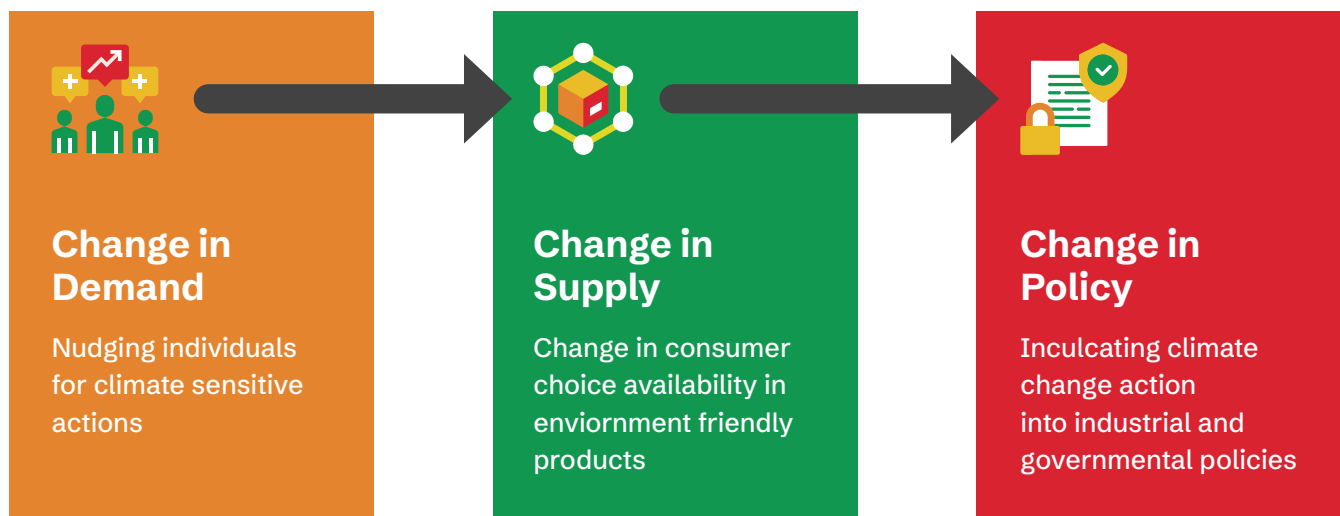
While it is acknowledged that the countries have to act now to keep the macroeconomic stability, the policy choices also have to be broad enough to include short, medium and long-term tools addressing both



physical impacts and transition policies. The members endorsed the G20 report containing voluntary and non-binding policy experiences acknowledging the need to engage more stakeholders.

One of the innovative instruments put forth by the G20 members was **Mission LIFE** (Lifestyle for Sustainable Development) an important manifestation of climate change. This component envisages mindful utilization of resources and avoiding mindless consumption. This principle resonated with the members and the forum's collective efforts. LIFE presents a detailed framework to encourage the widespread adoption of core concepts of sustainability into consumption choices and behaviours. These principles Encourage the institutionalization of sustainability. The framework has three phases namely Change in Demand, Change in Supply, and Change in Policy.

Mainstreaming Lifestyles for Sustainable Development (LiFE) Chart



One of the interesting pillars of the Green Development Pact is that of **Designing a Circular Economy World**, as it has been hailed on multiple occasions yet no actionable development has been missing for the majority of the parts. By including this component in the Green development framework, the Indian presidency has put the emphasis on behavioural change as a potential tool to achieve policy goals.

The circular economy under the GDP is envisioned with three pillars namely Technological Cooperation, Partnership, and finance aid to initiatives.



The most significant development on this front was the simultaneous launch of the Resource Efficiency and Circular Economy Industry Coalition (RECEIC) underscoring the actionability of the need for the circular economy.

This coalition spans nearly

40 Corporate entities

with headquarters in

11 Countries

and operates on a self-sustaining mechanism.



This puts the private sector and multinational entities on the map of sustainability, allowing them to participate in meaningful aiding the efforts against Climate change. The primary objective of this coalition is to craft solutions centred around the concept of the circular economy while acting as a policy enabler commanding community action. There are three foundational principles to the coalition namely coordinating high-impact initiatives, facilitating collaborations (especially B2B), and mobilizing finances for derisking. The concept of circular economy has now transcended beyond recycling and re-collection to enhance the efficiency and reusability of the material.

The inclusion of industry stakeholders can create positive impacts on the overall climate actions as the streamlining and direction of consumption patterns can be made more sustainable by this type of initiative. It also depicts a more inclusive approach where the state is not the sole responsible entity for policy change, creating multiple focal points for achieving ambitions on climate change.

At present, nearly half of the global population resides in Urban Areas and by 2050 70% of the world's population will be living in urban settlements (UNSD). In light of the changing climate, urban planning and infrastructure need a new approach to inculcate elements to withstand the effects of climate change. This theme becomes more relevant for the G20 members to discuss as the majority of them are developing nations on their way to reach the urbanization peak.



The 2023 summit openly acknowledged the need for massive investments to plan sustainable urbanization ranging somewhere near 94 trillion USD by 2040 (Heathcote 2024). For the emerging markets, the climate investment needs to stand at nearly 30 trillion USD by 2023. These investments need to be eclectic as governments worldwide may have fluctuating fiscal priorities and challenges.

The Principles on Financing the Cities of Tomorrow present a blueprint to inculcate sustainability in urbanization through quality infrastructure investments. These are voluntary and non-binding in nature, with a vision to guide inclusive, economically viable, and environmentally sustainable urbanization. The broad spectrum of the scope of these principles extends to cover the elements of resilience, maximizing investments, encouraging private investments, institutional preparedness, and augmenting the capacities of city administrations.

The first theme (Planning and making cities of tomorrow inclusive, resilient and sustainable) address the different stages of maturity in developed and developing countries in terms of urban planning, necessitating unique vision for each city. Promoting a low-carbon future with energy and resource efficiency at the city level would amount to a bottom-up approach to the actions against climate change. Integrating the circular economy approach and minimizing waste generation is another limb of this principle to create a system which offsets the negative externalities by built-in mechanisms leading to a net positive action on climate.

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Further, creating infrastructure resilient to the extreme weather events and the vulnerability created by it by adaptation by design. Further, creating infrastructure resilient to the extreme weather events and the vulnerability created by it by adaptation by design.

The second principle proposes maximising investment efficiency in cities by optimising both Public and Private sources of financing. The infrastructural investments have long gestational periods and require substantial funds. The public sector funds may not be sufficient for these types of projects, indicating a need to create alternative streams of financing by augmenting own source revenues, offering affording user-funding, land as financing solution, assistance from Multilateral Development Banks etc.

The third principle focuses on attracting private investments in urban development, for which creditworthiness and transparent regulations are essential to be incorporated into the city administration. while analysing the revenue-related needs of projects and strategizing accordingly may be the obvious and most effective answer, research and development need to be harnessed for upcoming technological requirements.

The next principle calls for institutional preparedness for urban financing With data-driven insights for policy implementation in urban planning, and crafting of specific contractual documents and better standardization to streamline various aspects of the project, such as structuring, reporting, and reporting etc.

The final and fifth principle concerns the augmentation of technical and institutional capacities of city administration for urban planning. Sustainable urban planning needs enhanced technical and financial capacity building by adopting innovation in technology involving multiple stakeholders in the process and raising collaboration with each of them.

The members moved ahead to chalk out challenges in the urban landscape including increasing population, resource crunch, limited capacity of the government at different levels, unregulated urban expansion, fragmented land ownership, challenges around inclusivity and inequality etc. **There was the introduction of a new concept called “Creative Redevelopment” which is a guiding and umbrella term under which various aspects of urban planning can be addressed in a conjoined manner with steps such as adaptation planning, enhanced consultation, etc.**



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The next component of the Green Development Pact is **Conserving, Protecting, Sustainably Using and Restoring Ecosystems**, which is aimed at addressing climate change, drought, land degradation, pollution, food and water scarcity etc. The leader's declaration committed to the goal of restoring at least 30% of degraded ecosystems while working towards achieving degradation neutrality.

The components of the plan to achieve this goal are,

- 01** Commitment to the objectives of the Kunming-Montreal Global Biodiversity Framework, and encourage actions to prevent as well as reverse Biodiversity Loss by 2030.
- 02** Reduce land degradation by 50% by 2040 voluntarily and ensure noting of the Gandhinagar Roadmap.
- 03** Incorporating the importance of the ecosystem approach by creating more green carbon sinks.

Additionally, the pact called for sustainability via international agreements while also recognizing the need to scale international cooperation and dialogues.

The Green Development Pact in its final component targets Ending Plastic Pollution, the leaders endorsed the resolution UNEP/EA/Res. 14 to work towards developing a binding legally enforceable instrument by 2024 to address plastic pollution, with a specific focus on the marine environment. The members built upon Osaka Blue Ocean Vision's G20 Marine Litter Action Plan.

The Green Development Pact covers the majority of the themes concerned with Climate Change and its negative impacts. It recognizes the urgency to act and the interconnectedness of these issues as a crucial part of the approach to be opted for. The strategy proposed by the pact mainstreams the voice of Global South and incorporates solutions for the same while strengthening the overall action on climate change. The implementation of this pact will affect the SDG framework positively and will streamline the frameworks on climate change and the environment. The pact offers a strong direction and a robust roadmap to work towards a more resilient, inclusive future.

04.

Too Little,

Too slow:

Gaps in Climate

Finance

Within the groups of “developing countries”, there can be many sub-groups which have better-aligning interests, for example, Small island nations, as per the priority and capacity to undertake actions.

The UNFCCC framework is probably the most comprehensive instrument on climate change which is in operation. This framework duly recognizes the exposure of developing countries to the risk and their need for financial assistance in taking concrete actions towards climate change. Since then the limitations of developing countries’ capacity to address climate change and the responsibility of the developed economies to compensate for historical emissions have been incorporated in principle into the majority of the components of this framework. Consequently, the Kyoto Protocol was enacted with the CBDR principle enshrined in it.

The Kyoto Protocol failed in achieving its objectives due to the reluctance and subsequent disagreement from the developed countries. The onus of reaching concrete commitments was then put on the COPs regarding mitigation actions by the developing countries.

The leadership of the emerging economies like India, China, Brazil and South Africa successfully negotiated the Copenhagen Accord, formalizing the financial commitment of

\$100 Billion USD

by 2020 (OECD 2022) on the part of the developed countries, and some mitigation measures to be taken by the developing countries.

One of the issues which complicated the negotiations in the coming years was that the decision on the quantum of amount in the Copenhagen accord was not based on much cost analysis and rather was the product of an arbitrary decision, which did not factor in for the cost of abatement measures that developing countries were to take. To further ambiguity, the corpus did not reflect any clear division or proportions of the Public and Private sources. However, to operationalize the mechanism, the Green Climate Fund was set up in 2010 with the agreement of all the parties.

In the next substantial development, in 2015, all developing countries accepted taking mitigation measures including reduction in the overall emission footprints of the GDP, working towards energy efficiency and restoring the forests. These commitments were not accompanied by any reassessment of the amount of financial aid and the earlier amount was reiterated with all the ambiguities intact as the sum of climate financing. There was no substantial compliance of this goal of finance due to ambiguity and different forums calculate the amount of actual investment at different levels.

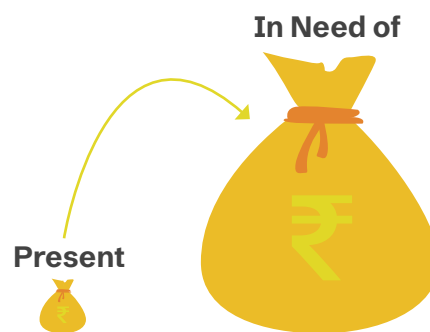
In 2021, COP26 at Glasgow oversaw the mitigation-related commitments by all the countries, with stronger commitments by the developing countries, to reach net zero targets at various points of mid-century. The new net-zero target was ambitious and naturally required substantial investments. The Glasgow pact acknowledges the need to revisit the quantum of climate finance but does not expand on the scale of increase etc which is to be negotiated after 2025.

The need to expand the finances in climate change is becoming more and more urgent with the passing of time, and at present it is matching the speed of climate change, causing the gradual closing of the opportunity to act. The opportunity to act on climate change also holds the chance for emerging and developing economies towards a transition into energy security and resiliency. The recent global stocktake makes it clear that the investments in climate are not only insufficient but also misdirected. **This slow pace of investments is causing setbacks in the low-carbon transition, especially in the emerging and developing world.**

The adaptation financing at present is in need of

10-15x

more funds than the current finances. (UNEP 2023)



The reassessment of this amount has to account for the new financing needs and additional investments required for the developing countries to reach the net-zero target. This would include a shift from fossil fuels to cleaner energy and power options while offsetting the remaining emissions by creating carbon sinks and other similar measures. The investment demands for a structural shift would be huge to transition into a functional and growing economy with net zero emissions. Additionally, developing countries being more susceptible to extreme weather events would also have to initiate adaptation efforts simultaneously as a parallel process.

The total quantum of investments since has been calculated by multiple entities and a few of them are listed below

Climate Finance Estimates For Sustainable Energy



\$2.8
Trillion
 per year between
 2016 and 2035



\$4
Trillion
 per year between
 2021 and 2030



\$3.3
Trillion
 per year up
 to 2030

To move further and establish patterns, we must analyze the trends in climate finance. Although the climate finances have been steadily increasing over the past few years, especially since 2012. The net amount contributed has witnessed a consistent pattern with remarkable growth in the year 2021-22, primarily stemming from mitigation finance.

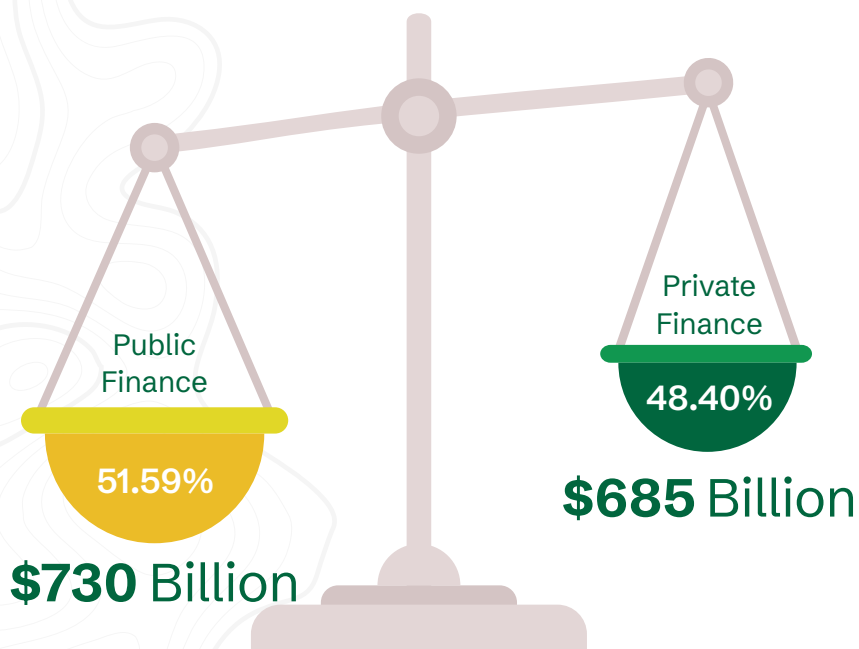
At present, the overall finances put into the climate account for nearly 1% of the world GDP, while the projections indicate need for a range of 3-4% of the global GDP as the estimates for climate financing. (Bhattacharya et al, 2023)



Based on the data available, the substantial growth in climate finance in the year 2021-22 amounting to above 1 trillion USD from the 650 billion in 2019-2020 (Bhattacharya et al, 2023) can be attributed to transport and renewable energy-related mitigation strategies. Along with finances, the data available on Climate Finance is also increasing, leading to more accurate estimates and assessments. To substantiate, the availability of better data on green bonds leads to a 28% increase in the availability of finances. (CPI 2024)

At present, the public and private sectors have both generated closely equal finances for climate with energy and transport emerging as a priority in both, with the public sector targeting relatively underserved sectors as well.

Comparison of Public and Private Finance in Climate Change



Within Public Finances,
the total commitment
averaged out to nearly
640 billion USD
in 2021-22

contributing to nearly half of the
global total and recording
more than a

90%



increase from 2019-20 commitments.

National Development Finance
Institutions (DFIs) accounted for nearly
half of the public finances,
while multilateral DFIs
provided nearly
15%
of the total.



The government and its
agencies contributed to
climate finance

by mobilizing

16%

of the total commitments
from the public sector.



Multilateral Funds set up under
various frameworks
contributed to
0.5%
of the total commitments.

One consistent but undesirable
pattern emerged here as the
Agricultural, Forestry and Land
Use Activities received a low share
from these commitments, despite
alarming emission assessments
indicating delayed climate
action. The Energy and transport
sector remains the recipient of
the highest share here as well.
(Buchner et al 2023)



In Private Finance,
a total commitment of
625 Billion USD

was mobilized with most of the sources of such finances in the United States, Western Europe etc. targeting mitigation and contributing

to more than
90%

of the total private climate finance.



Commercial Financial Institutions such as banks accounted for 38% share amounting to

235 Billion USD

while corporations contributed

31%

or 192 Billion USD in the year 2021-22.



The corporate contributions were primarily focused on energy and infrastructural efficiency.

The household spending on climate mitigation amounted to

184 billion USD

primarily driven by global electric vehicle purchases sustained by strong domestic policies and technical specifications.



Lastly, the institutional investors contributed nearly
6 billion USD,

equal to the contributions of the institutional funds. (Buchner et al 2023)



Till 2021, the commitments made by the developed countries to enable the developing countries in climate finance were not fulfilled, leading to a trust deficit. The promise to provide 100 billion USD in 2009 was foundational to the Paris Agreement and to achieve its objectives. There are unverifiable estimates that the amount of 100 billion USD annually was met in the year 2022 by the means of Multilateral Development Banks. (OECD 2022) (Civillini, 2023)

In the immediate priorities for climate financing are compliance with the 100 billion USD per year commitment for enabling the developing countries to take up more ambitious climate actions and goals. This would have to be followed by fulfilment of commitments on the institutional financing mechanisms such as the Green Development Fund, while working towards further broadening the replenishments. In furtherance, the Special Drawing Rights pool needs to be expanded for recycling beyond the above climate financing commitments with the help of IMF's Poverty Reduction and Growth Trust. Alongside the above commitments, it must be kept in mind to diligently revise the climate financing targets in light of the scientific analysis. Finally, the recently conceptualized Loss and Damage Fund must be operationalized to ensure sustainable investment flow. As the inequality in access to climate finance has been more obvious from the data provided earlier in this chapter, these priorities must be executed with due consideration to principles of justice and inclusion.

The present data on climate suggests that the world would need 8 to 9 Trillion USD annually by 2030, and around 10 trillion USD each year from 2031 to 2050, (UNEP 2021) indicating the need for five times more finance than the current levels. Also, delay in initiating the climate action would keep adding more costs to these estimated investment needs in climate finance. It must be noted that the total cost of climate investments in mitigation is significantly lower than the cost of adaptation to climate change and extreme weather events resulting from such climate change.

The growth in the climate finances, although positive, might not be sufficient leading to the need for greater momentum for the same. The most significant growth observed in past years is owed to geographically restricted investments in clean energy as the large majority of these fundings were restricted to a very few countries like China, USA, India, Brazil etc., and despite the funding, these specific regions remain in need of more funding due to the large climate finance gaps.

The state of climate finance also does not follow any specific pattern across sectors indicating an uneven distribution. For example, **climate finance in mitigation** was above 1 trillion USD in 2021-22, within which Energy and Transport responsible for most emissions among sectors attracted nearly 44% of the total mitigation finances and 29% respectively owing to exponential growth in the promotion of Electric vehicles across China, the USA and some parts of Europe. Agriculture and industry despite being the largest emission source



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after energy and transport received less than 4% of total mitigation climate finances. (Buchner et al 2023) Interestingly, this sector has a higher mitigation potential than the energy and transport combined.

On the other hand, Adaptation Climate Finances continue to grow falling much short of the necessary amount, despite witnessing an all-time growth of

28%



compared to 2019-20.

An overwhelming majority of adaptation finances (Around 98%) come from the public sector, while private sector-led contributions remain largely inconsistent. (Buchner et al, 2023) The distribution of adaptation finances as per the sectors remains inconsistent. To illustrate, the Agriculture Forestry and Other Land Use Sectors received a meagre 11% of overall adaptation finances despite its vulnerability. (Butchner et al 2023)

If we assess the geographical distribution of climate finance, inconsistent patterns emerge. Most of the climate finances are sourced from the private sectors of developed nations. The majority of the global north including countries such as Canada, the USA and Western Europe accounts for nearly 84% of total climate finance with a greater mobilization of domestic resources. The rise in international climate finance increased by 35% in 2021-22 compared to 2019-20 owing to the increased compliance of respective commitments by the developed countries, while the emerging markets and developing economies committed to less than 15 % of the total climate finances. **Notably, China oversaw the highest domestic mobilization of the climate-related finances, outpacing the rest of the countries combined. On an underwhelming note, the developing and Least Developed countries received or mobilized less than 3% of the global share of climate finance, and for the emerging economies, the number stayed similarly low at 15%.** The unequal distribution of climate finances can be inferred from the fact that between 2000 and 2019, **the top 10 countries with the highest vulnerability received less than 2% of the total climate finances. (Butchner et al 2023)**

Opportunities and window of climate financing

Multiple examinations of the data available on the trends of climate finance lead us to the need to specify the potential areas with the highest impacts. In this context, financing adaptation and channelling private finance appear to be the areas which could be used to scale up the volume and frequency of climate investments.

Elucidating the relevance of Adaptation Financing, it can leverage the developing world into incorporating resilience and nudging the sustainability component in climate action. The in-built resiliency into the infrastructure with climate risks factored in could lead to better responses to disasters. Assessing the trends, the private sector appears prepared for a greater role in climate finance conditional upon a more proactive consultation initiated by the governments and other international institutions. The private sector expects incentives, de-risking projects, and conducive conditions for investments in developing countries.

Within the debates and deliberations of climate finance, the developing countries are often seen or considered as beneficiaries of the finances and thus their perspectives have been reflected in the negotiations quite recently. Even then, there are a few countries emerging as leaders, but the majority of the low-income countries yet find less space in the discussions on determining the framework. It is ironic since these countries are carrying a disproportionate vulnerability to climate change risks while also facing developmental negation due to extreme weather events.

To fulfil the economic development needs, these countries are yet to reach the peak of their respective emissions. Ignoring economic development and climate change is not an option for these countries as in both cases, they stand grave consequences. Hence to attain greater results on the net-zero emissions by 2050, the needs of developing countries are an essential component for discussion.

Based on previous experiences and participation, four major areas emerge as the most promising and viable from which resources can be mobilized for climate change.

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The first component contributing to the mobilization of climate related funds is the *Domestic Financing*, from which nearly half of the estimated incremental investments would have to be sourced. (Bhattacharya A. et al., 2023) This represents the most practical approach in the context of the unpredictable international compliance to climate finances, and it also corresponds to macroeconomic prudence in planning to shift the locus action within the economy making it more concrete. The large external investments may also result in greater levels of public debts, in case the nature of these investments is not “Grant-in-aid” causing significant vulnerability. The implications of this type of mobilization may lead to a negative impact on the export potential.

As each country would experience a unique set and extent of domestic mobilizations, **the low-income countries might have to anyway rely on foreign funding, as there is no distinction in climate finance need-related estimates available.** Considering the size of their economy and GDP, relying on international finance may be a relatively viable option for them. (WID 2023)



The emerging economies, on the other hand, will have to use domestic sources for at least

50%

of the resources,

and although the tools available to achieve this goal may be a bitter pill, they need to be considered in light of the overall climate policy framework. For example, although very promising from the climate action perspective, Carbon Taxation coupled with the elimination of fuel subsidies would put additional stress on poorer households. Persuading the private sector to collaborate more on such experiments may fragment the risk significantly.

The second component is International Financing, which is often more contentious in many aspects including adequacy. Four methods can be used to mobilize investments from this source namely Official Bilateral Assistance (OBA), Non-concessional Institutional Loans, Bilateral Non-concessional Lending, and International Private Finance. It is worth pointing out that the first three are public in nature which are determined by government decisions of the donor country while the fourth source depends heavily on the market conditions as it is private in nature. (Gouett, M. 2023)



The geopolitical instability, domestic fiscal priorities, and the reluctance of the developed world to mobilize finances have been a clear indication of the public source. Despite that, low-income countries may have to place a higher reliance on the OBA as long-term loans and private investments would not be economically viable options. It is estimated that as the developed economies recover from the fiscal challenges of the pandemic, the OBA can be revived as a promising source of funding. Bilateral Non-concessional Lendings are generally focused on forming specific partnerships in identified areas, thus it can not cater to larger needs related to climate finances but can be an effective front for targeted sectors such as energy efficiency.

The third source indicates the loans extended by multilateral institutions, such as Multilateral Development Banks. This route is more useful for middle-income countries as they might not desire ODA but need to raise long-term investments to address climate change. These countries are projected to experience substantial economic growth in the coming decades and hence need to churn the investments shift towards energy and related infrastructure, in the absence of which they will end up releasing huge amounts of carbon emissions making the climate commitments redundant.

The finance options offered by the multilateral development banks (MDBs) offer the flexibility to suit the needs of these emerging economies.

From the existing

27 billion USD

Till 2025, these institutions need to enhance the loans up to 99 Billion USD 2025, which is not possible without the agreement from the G7 Countries.

The developing countries view the MDB funding as a viable source of climate finance when the quantum needs to reach the counts of trillions from existing billions. (Gouett, M. 2023)

However, the optimum efficacy of the streamlining of finances needs to be complemented by the augmentation of the funding from the private sector, which brings us to the fourth component. This source has one of the highest potentials to bridge the gap in climate financing in a more sustainable manner. Since the Glasgow Financial Alliance for Net Zero emerged with nearly 450 firms as participants having



access to 130 trillion USD worth of assets and has shown initiatives at the COP. The climate financing coming from this source has been underutilized as only 377 billion USD was mobilized for the emerging economies till the year 2019, (GFANZ 2022) due to the unavailability of projects conducive to private investments in the emerging economies. Additionally, the target countries here have domestic macroeconomic uncertainties coupled with project-specific dynamics stemming from unpredictable government stances, increasing the overall investment risks and costs.

An optimistic change has come in the form of the Green Bonds offering an opportunity to lower the cost of capital in developing countries. **The major bottleneck in operationalizing large-scale green bonds is the increased cost of certification, compliance, and diligence against greenwashing.** Moreover, it does not make any fundamental changes to the investment-related conditions in the host country and puts the burden of making these fundamental systematic changes on the developing countries with no plans for assisting this transition. (WEF 2023)

It is clear from the above discussion that the mobilization of Climate Finance has not reached a mature state where stakeholders can optimize their contributions. Rather the uncertainties in the negotiations and discussions related to climate finance may affect the global progress on climate change. The delays, lack of compliance, and inaction have created a vicious cycle of a trust deficit where the developed countries are sceptical of financing the climate actions, and the developing countries are hesitant to initiate the action. As time progresses, the radicals of climate change are compounding at a very fast rate leaving only two choices for the entire world, either finance the climate action today or finance the adaptation tomorrow, except the cost of adaptations in future would be much larger. The implications of inactions are too high for all the stakeholders to sit idly, instead, they need to start action on climate change to the best of their respective capacities keeping in mind the resilience and adaptation needs of tomorrow.



The background features a stylized world map with white contour lines. The map is centered on the Atlantic Ocean, with North and South America visible on the left and Europe and Africa on the right. The background has a vertical gradient from red at the top to green at the bottom, with a bright yellow sunburst effect in the upper right quadrant.

05.

Roadmap for Emerging and Developing Economies

Within the group of “developing countries”, there can be many sub-groups which have better-aligning interests, for example, Small island nations, as per the priority and capacity to undertake actions.

Acknowledging that the deficit in climate finance is at the core of the ongoing climate crisis, the essentiality of taking concrete actions can not be negated. Financing in the climate even if scarce, is the key to addressing climate change, thus indicating the need for an approach with a combination of orientations. There is concrete data to indicate that current patterns would keep nearly 600 million people in extreme poverty in 2030 and despite the clear need for reductions in the GHG emissions, these are rising rapidly. (WID 2023)

There has been a change in the economic conditions in a post-pandemic world where the developing countries are witnessing contractions in GDP, leaving iota for perpetuating inequalities at multiple levels. Digitization and technology have started to disrupt traditional economic outcomes, leading to a greater extent of unpredictability. The tight fiscal situations have worsened debt-related scenarios as the cost of adaptation is compounding indicating a near future snowball effect.

While the leadership of developed countries appears institutionalized in the majority of the climate-related multilateral frameworks, discarding a majority stakeholder view of the developing countries. The differential treatment of the global south has remained a contentious point in climate-related discussions, making the operationalization of commitments difficult.

The climate negotiations have seen three stages

- 01** Leadership Paradigm (up to 1996) oriented towards inclusion of developing nations and mutual trust.
- 02** Conditional Leadership (1997-2007) is marked by a reluctance shown by the developed countries to fulfil commitments only when developing countries are willing to make substantial commitments.
- 03** Leadership in recession (2008-2020) with almost abstinence shown by developed countries to set any binding targets. (Hurri, 2023)

The overall initiative has been shown by the developing countries has been more proactive if the NDCs are assessed as a measure of commitments. With the extreme weather events increasing rapidly causing vulnerability to the developing world in terms of fragility, conflict and displacement, Food and Water security, global health, economic development etc. Developing countries thus hold the key to climate action and the opportunity to act on these.

Systematically, developing countries are often seen as one group which might prevent the conceptualization of better climate action plans. **Within the groups of “developing countries”, there can be many sub-groups which have better-aligning interests, for example, Small island nations, as per the priority and capacity to undertake actions.** Some countries which find it viable moving towards the low-carbon economy already, making them different from the rest group. While the stands on the matters of climate and keep evolving, there is a general consensus emerging regarding combining the actions on climate actions and economic growth. While the external funding may vary, the countries have started to build up on mobilizing domestic resources to build better resilience. Many developing countries have also opted for a constitutional environmentalism, solidifying environmental protection and climate change action within their highest legal framework.

Developing countries have many challenges to address while initiating climate actions. Domestically, policy formulation requires a sophisticated system of institutions and national policies in place, with alignment with federal governments. Access to technological advancements is another crucial area where these countries might have to face limitations. The developing countries might have to stimulate institutional learning by experience as they implement climate change prevention policies.

Against this backdrop, the Green Development pact can aid as a comprehensive framework as it envisions a wide variety of actions which can be taken on climate change. This instrument moves away from the conventional approach of tackling the more popular areas of choice for climate change requiring a huge amount of funding and encourages a simultaneous and multipronged approach by tackling the most actionable areas, such as consumption choices.

Additionally, governments can choose from the variety of finance sources available to work on for best results. There are many mechanisms in place today which may be a viable source of funding for developing nations, and many of the emerging and developing economies have had positive experiences with these. Learning from these policy experiences, the countries can work towards creating multiple, even if relatively smaller, streams of funding.

At a normative level, there are some priority points which can guide the developing countries into strategizing climate action better.

Primarily, the countries must address the debt and fiscal constraints on their economies. The recent pandemic has led to a critical condition where developing countries are experiencing high levels of public debt coupled with surges in food and energy prices. The commercial borrowing rates have also risen to cause investments costly leading to a less conducive environment for attracting capital. Management of this fiscal situation has to be a priority for these countries to crystalize any further action on climate change. These countries will have to move multiple measures domestically to address the solvency crisis through debt restructuring.

In this area, prioritized actions can be to create better fiscal conditions for investment by improving liquidity, contract renegotiations to include clauses related to natural disasters, sourcing commitments for international institutions regarding loans, conditional loans from bilateral sources based on performance on climate action etc. The debt restructuring would need measures

The recent pandemic has led to a critical condition where developing countries are experiencing high levels of public debt coupled with surges in food and energy prices.



like buying private sector debt on climate change with governmental guarantees and streamlining the debt treatment framework. Another priority must be breaking the cycle of climate vulnerabilities and climate finance by opting for contracts having provisions to address climate change-related events and conditional debt relief.

Seeking international grants is one of the obvious ways to raise climate finance from established and dedicated climate finance mechanisms such as the Green Climate Fund. While the overall amounts pumped into these are shorter than the quantum needed, the optimum use of the available amount must be attempted to take some action on mitigation. Since these mechanisms are dedicated to climate change, they would be more likely to be augmented for climate finance. Another potential instrument specifically for low-income and developing countries can be institutional loans at concessional rates, such as the World Bank. as the World Bank. These would put less stress on the macroeconomic situation of the country.

Creating long-term strategies for action on climate change by adaptation and resilience with ambitious goals aligned with the Paris Framework. The components which must be included in such a framework are NDCs, strategies for adaptation, and action plans on environmental protection. This would ensure credibility and clear paths for creating focused attempts to meet the objectives of this plan. Landscaping viable investment opportunities and sources is another important aspect of this pillar, as the conditions may vary from country to country and a straight-jacket formula may not be suitable for all. This would also increase interlinks within the umbrella of climate finance and would put forth a combined front to address multiple climate change concerns with a lesser number of measures.

An important aspect of taking these measures is achieving substantial and tangible action utilizing the finances and support provided. While it is apparent that the finances are aimed at achieving results, the developing nations have differential challenges and the road to achieve these targets are riddled with multiple complicated factors creating contingencies.

To minimize these set of challenges, the countries must enhance domestic institutional robustness and substantially improve upon creating an ecosystem of coordination within the government by capacity building, single window mechanisms, facilitating corporate entities in their climate-oriented initiatives etc. These policy and institutional reforms must be coupled with more effective tools such as incentivized investments by substantially reducing hurdles in low-carbon investments and technologies, streamlining the financial system to the principles of Green Growth in a gradual manner etc.




To parallel build international policy cooperation, the countries would need to create multiple channels of dialogues dedicated to specific sectors and groups, allowing a much wider range of stakeholders to participate in strategizing climate action. Some of the developing countries have already created such platforms for collaborations to aggregate international support with national priorities accelerating strategic collaboration. This complements the existing partnerships and facilitates better institutional engagements leading to mutual benefits of inclusive plans as per national priorities and more availability of mutual support from other developing countries. These initiatives can also play a greater role in ensuring the competitiveness of markets while ensuring the application of green policies by enhancing cooperation.

Domestic Resource Mobilization is a relatively less discussed tool to finance climate as the multilateral dialogues focus on international funding, yet sufficient analysis has been done to understand the positive implications it can have on Climate Financing in developing countries. In addition to substantially reducing dependence, it would augment the domestic resources providing substantial capacity building in greening the economy in a more flexible manner.

These efforts have to be accompanied by reducing the fossil fuel subsidies horizontally and vertically leading to more corpus being available to invest in green development. Taxation can be another potential domain, where public funds can be made available simply by ensuring compliance with the existing frameworks





Mobilizing substantial amounts of domestic resources may be challenging due to the economic conditions of the EMDEs and it may require tough restructurizations. To substantiate, innovative policies such as Carbon Pricing may assist in tapping domestic resources, however, may also be an unpopular choice. Hence opting for combining the elements of potentially suitable policies to achieve a smooth transition is a more viable option. **These efforts have to be accompanied by reducing the fossil fuel subsidies horizontally and vertically leading to more corpus being available to invest in green development. Taxation can be another potential domain, where public funds can be made available simply by ensuring compliance with the existing frameworks,** while considering the viability of increasing the taxation based on consumption, employing a progressive system of taxation, and sector-based taxation where more polluting methods have a higher rate of taxation. While opting for these options, the countries must duly consider the domestic economic and political implications of these tools to gain greater legitimacy and faster compliance.

Augmenting domestically sourced private capital can be a game-changer in unlocking the available funds with the developing nations. The only precondition is an enabling and conducive environment for investments and business which is a substantial but scalable challenge for the developing countries. The potential of a significant rise in climate finance, especially mitigation in emerging economies, is promising. This source can be augmented by using multiple tools such as linking green bonds and transition, mobilizing long-term savings such as pensions for financing low-risk green projects, enabling capacity building to engage more experts in the process, and ensuring greening fiscal rules.

Another limb of the same pillar is fostering a larger role for corporate entities in the green transition. The developing countries have witnessed a substantial increase in recent past in the number of corporate entities registered allowing a large base for functionalizing this component. As a participant in climate action, corporate entities can offer enhanced efficiency and innovative technologies in channelling demand and supply of green products and services. Their skills and expertise can benefit public institutions immensely. There are some effective instruments which can increase the corporate entity engagements over time. Among those, ease of access to debt finance, incentivization of equity capital, encouraging low carbon supply chains, and guiding better assessment practices are important and have a high potential to make large-scale impacts.

A substantially important tool in the context of corporations is Corporate Social Responsibility (CSR), which has a legal mandate in many developing countries. Governments can encourage and widen the areas within green transition in which the corporates can undertake CSR activities aligned greatly with the expertise of the corporate entities.

Apart from corporate entities, another significant player operating within the space of the private sector is philanthropists. At present, very few contributions to climate finance are sourced from philanthropy making it a potential sector to leverage financing. Given that philanthropic activities in other areas have been more accepting of the vulnerabilities of developing countries, the scope for the same attitude in climate investments is highly probable. While bridging the gaps in finance viz a viz assessments of strengths of the stakeholders involved, innovative and flexible country models can be opted for leaving a large iota for financing the urgent needs of the climate action including adaptation, mitigation, disaster management etc. Philanthropy as a sector also has inbuilt flexibility in terms of financing models and geographical locations, allowing for better partnership opportunities to put a joint front in addressing climate change.

There is a need to reorient the derisking process allowing more modularity in the approach leading to a more tailored approach by developing suitable instruments and a policy accommodative enough to allow such variations. A targeted approach combined with derisking considering the context of sector-specific nuances can increase the capital inflows. Ambiguity in the frameworks and policies governing investment is a constraint in attracting capital as it indicates an underlying unpredictability in the economic and political governance, affecting the viability of business activities. The developing countries have this systematic issue to address, but to attain faster action on climate change, they can target investments in green transition specifically to start building an environment of predictability and stability. To achieve this, progress will have to be made on defining parameters and categories within the transition investments while consolidating the governance framework suitable for the domain specifications for a transition economy. Aligning corporate vision for transitions with the national plan for transition can result in greater agreement percolating at the community level eventually.

There has been disagreement on the amount of finances needed for climate action specifically for the developing nations, and one of the primary reasons behind this disagreement was the unavailability of region-specific and country-specific data on climate change. As the developing countries consolidate their domestic actions, they must also focus on improving data management and access. This would inculcate a demonstrable trajectory regarding the needs, success, and challenges specific to the country, and as the countries can identify their priorities, strengths and weaknesses, pitching specific asks for finances would become more persuading. A standardised dataset with built-in verification can provide a comprehensive outlook to the potential investors, while also allowing better accountability mechanisms.

Finally, one of the most important sources for the developing world to access Climate Finance is the Multilateral Development Banks (MDBs), which have historically proven their significance in enabling development in low-income countries. Even within the landscape of climate finance, MDBs stand as a substantial mobilizer, especially in context of the developing countries. The architecture of MDBs is crucial to making progress on the climate finance front. The role of MDBs in providing low-cost climate investments and aid has not reached its full potential leaving out scope for the developing countries to augment their approach towards the same.

There can be innovation in terms of the country engagement models due to the wide spectrum of capabilities the MDBs hold. MDBs need to significantly work on enabling green transitions, adaptations and resilience in low-income countries, while also reaching beyond the project/institution-led approach. The World Bank's Climate Change Development Reports can serve as a compass for the MDBs to reorient their approach towards climate investments. A few areas and priority actions would include establishing mechanisms to set collective MDB targets, greater intra-MDB coordination, and rationalizing projects in favour of the particularly vulnerable countries.

The structure of MDBs allows them to engage a wide variety of partners ranging from national public institutions to private sector entities. They also harbour a deep experience of working with nearly all countries having a detailed understanding of the specific challenges and limitations. This can be used to enhance the investment flows to low-income countries and critical sectors with fewer alternatives for funding. A co-creation of investments would serve the needs of developing countries while allowing viability for the MDBs, along with innovating on the instruments channelling finances into green transition as per the specific needs of a region.

Within the MDB structure, some measures for enhanced transparency in data input and outputs accompanied by sound climate finance reporting, undertaking independent monitoring of progress based on set parameters, and stock-taking exercises would drastically increase the efficiency of these institutions. The MDBs must ensure inclusivity in the ecosystem of climate finance to tackle the priority and critical needs of low-income countries. Further, augmenting finances from bilateral donors, increasing adaptation finance, enabling leadership for capable stakeholders, defining the parameters and scope of green financing, revamping usage of the Special Drawing Rights in climate finance, and working towards regulating carbon markets in a more sustainable manner are among few areas where the vacuum can be reversed by the MBD action and guidance.

Finally, it must be acknowledged at this point that emerging economies are potential leaders for developing countries and low-income countries in their climate-change actions. While these emerging economies are not economically developed to commit to and provide substantial climate funding comparable to the developed economies, they can offer substantial support to other developing and low-income countries in assisting them through the green transition. This trend is a positive development, as emerging economies understand the landscape and inequality in the climate change frameworks and impacts. Their experience and evolution into a relatively high-performing economy can provide other developing countries with a comprehensive repository and consultation points to initiate climate-sensitive practices.

The emerging economies appear to be aware of this responsibility and thus have taken up significant leadership roles on multilateral forums, in addition to the ambitious targets and initiatives to address climate change. As can be seen from the recent G20 trends, these countries are working towards mainstreaming the perspectives of the developing world into climate-related deliberations. The size of these economies in terms of GDP is substantial enough to make a high impact on climate change. These countries understand the limitations of the developing world and the trade-offs involved in achieving a green transition with limited economic power and high vulnerability. A greater engagement as leaders by these countries on the themes and priority areas assessed in these chapters would facilitate meaningful outcomes, leading to better action plans and compliance.

As mentioned in the earlier chapters, the salience of these emerging economies-led initiatives is significant because they account for the concerns, challenges and capabilities of the developing world leading to greater participation and concrete action overall.





06.

**More Synergies
and Less
Trade-offs:
Way Forward**

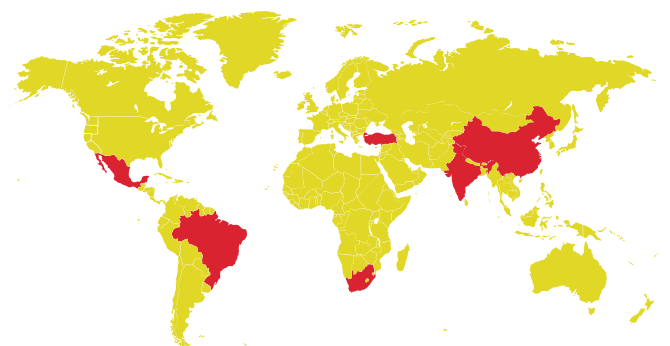
Brazil has reduced its emissions by adopting biofuels as an alternative energy resource. This initiative has led to significant reductions in energy imports and has provided a more diverse energy supply to the country.

The discussions on climate change have come to a critical point where climate-related vulnerabilities are leading to a potentially disastrous future with unequal exposure to these vulnerabilities with poorer regions at the receiving end. There are notable shifts occurring in the leadership of climate change with new and more inclusive frameworks emerging from the Global South causing the overall movement to move forward, while the compliance to the agreed-upon finances from the developing world is far from being fulfilled.

As the actions become more and more urgent to address the mitigation and adaptation demands, the overall progress has been disappointing and inconsistent. The global south has an upcoming disproportionate burden to face climate change, and in the absence of adequate financing, there is no clarity as to how this will be achieved. The effects and implications of climate change have started to emerge indicating a more complex relationship between society, the environment, and the economy. There are multiple patterns emerging around the world demonstrating the highly volatile future that inaction on climate would lead to.

Among the multilateral forums, the UNFCCC framework appears to be marking a mixed set of results, among which the most crucial issue of climate finance remains largely unaddressed in comparison to the requirements. The G20 in the past few years has produced more action-oriented outcomes on climate change and this probably can be attributed to the substantial membership of then developing countries solidifying the leadership of emerging economies due to more elaborate discussions and deliberations on the experiences of the members. While these countries are likely to emit more GHG emissions than those from developing countries, they have taken steps to mitigate and reduce the risks of climate change.

These emerging economies including **India, China, Brazil, Mexico, South Africa, and Turkey** reflect a significant share of economic, demographic, and natural resources in the overall global landscape.



These countries have very different domestic situations and experiences, and yet they share common concerns over the issues of economic and environmental trade-offs. The issues of sustainable economic growth, clean energy transition, and environmental restoration are equally important to these economies creating an opportunity to enable synergy. These countries have made significant progress in the domain of climate action.

Brazil has reduced its emissions by adopting biofuels as an alternative energy resource. This initiative has led to significant reductions in energy imports and has provided a more diverse energy supply to the country.



To supplement, Brazil also provides tax incentives to energy-efficient vehicles leading to a shift in consumer choices of the middle class. This policy led to the abatement of nearly 2 tonnes of carbon emissions.

China is one of the leading developing countries and is often perceived as a near-developed economy outside formal negotiations. It stands at the front in receiving the climate finances and mobilizing the domestic climate finances. Additionally, the development of resilient physical infrastructure has reduced its vulnerability to extreme weather events.

India has assumed a leadership role in the climate change deliberations and is leading by example. The Green Development Pact conceptualized under the Indian stewardship stands as a progressive framework to take action on climate change much further. The pact has put the concerns and viability of the solutions at the forefront, leading

to better adaptation and mitigations. It also sought to eliminate the minimization of nudging-based policies, as from its own experience, the utility of behavioural change policies does lead to outcomes when pursued systematically. The pact has a wide spectrum of themes under it covering majority of the interconnections within climate change.

However, these efforts do not suffice in creating an impact on climate change. The framework of the Pact has to be complemented by better climate financing scenarios to actualize the intended goals and outcomes. The pact only outlines a vision for climate change and its components. The operationalization of this has to come from the countries.

The world is at a juncture where the distinction between developed and developing countries does not exist at a macro level, as climate change has nuances for all economies. While the developed nations have a responsibility to fund the efforts towards climate change, the developing countries are morally obligated to minimize the cost of economic growth by adaptation and mitigation to per best of their capabilities. Any further deviations on the matter would be an invitation to a catastrophe beyond nation's capacity to address, standalone or even combined.



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