

Chapter 4. EU's Leadership in Framing Climate Change and Energy Policies: Carbon-neutral¹⁾ Pathways for the Future.

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Introduction:

In the year 2020, for the first-time, major world economies announced their “net-zero” national carbon emission reduction targets, plans for substantial reductions in fossil fuel consumption and a transition towards incorporating renewables as a major source of energy, realigning their climate change mitigation goals. Even the US, the second largest emitter²⁾, who had withdrawn from the UNFCCC³⁾ Paris Agreement earlier, has rejoined it yet again, with the US President Joe Biden's announcement on the very first day of his Presidency. In the run up to the election campaign, Biden had earlier proposed a plan to achieve net-zero emissions by 2050 for the US⁴⁾, though there is already scepticism about how it will proceed towards such an ambitious plan, given the state of affairs there⁵⁾. Earlier in September 2020 the Chinese President Xi Jinping addressing the UN General Assembly announced his plan for

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- 1) Carbon-neutrality refers to net-zero emissions of carbon dioxide (CO₂) into the atmosphere.
 - 2) World Resource Institute data (<https://www.wri.org/blog/2020/12/interactive-chart-top-emitters>).
 - 3) United Nations Framework Convention on Climate Change (UNFCCC) came into force in 1994 and is tasked with responding to the global threat of climate change.
 - 4) President Biden's election campaign website (<https://joe Biden.com/climate-plan/>).
 - 5) US had withdrawn twice earlier from the climate change treaties during the Republican administrations in 2001 and 2017. Therefore, it needs to be seen whether this early efforts towards climate action by the new Democrat administration will stand the tests of time in the scenario of a change in leadership in the future.

carbon-neutrality by 2060⁶). China being the largest greenhouse gas (GHG) emitter, project financier and the largest market, is also poised to make a big difference in the drive towards reducing emissions worldwide (BBC 2020a). The other East Asian giants both Japan⁷) and South Korea have also announced their plans to attain net zero emissions by 2050 in October 2020. All these major announcements just in a year, shows the change in perception towards the climate change crises and the broad consensus towards the pathways to mitigation, in the major economies of the world. In Part I, the paper looks at the evolution of the multi-lateral cooperation on climate change under the UNFCCC, culminating with the 2015 Paris Agreement. This section also looks at the latest warnings on the severity of the climate crises by the latest science and how the international organizations, viz. Intergovernmental Panel on Climate Change (IPCC), United Nations Development Programme (UNDP) in its Human Development Report 2020; and the International Energy Agency (IEA) have responded to it in their latest reports released in 2020. In Part II, the paper looks at the energy sector's primary role in combating climate change; and the European Union's (EU) central role in identifying and incorporating policy frameworks to addressing both its climate change and energy policy challenges, with an aim at leading the world through interventions in the UN's multilateral processes.

The spate with which the national level pledges which were announced in 2020 towards carbon-neutrality began in December 2019, when the EU took the lead in announcing its “action plan” to transform the EU region through an “European Green Deal”, comprising of a long-term target towards net-zero carbon emissions by 2050, together with a short-term plan of halving all emissions by 55 percent by 2030. The EU's Green Deal, promises a Euro100bn economic package and it is the “biggest overhaul of policy since the foundation of the modern EU” (EC 2019). The deal has many spokes, including creation of a cir-

6) China is aiming to peak its carbon emissions by 2030 and then towards net zero emissions by 2060.

7) This is the first time that Japan is setting an explicit target date to achieve “zero” emission of GHGs and to realise a carbon-neutral society.

cular economy, a better and efficient management of recycling industry, reduction of emissions in the air transport sector, increased freight transport using water ways and railways and allocation of finances for tackling climate change and reduction of emissions and so on. Further in March 2020, the EU proposed an “*European Climate Law*”⁸⁾, also a first of its kind, which is currently under the process of legislation. With these pathbreaking policy interventions EU is projecting itself as a leader in climate change mitigation efforts worldwide. In fact, the EU since the early 1990s itself was in the forefront of the multilateral processes which achieved the pathbreaking Kyoto Protocol in 1998.

Part I. Global cooperation on climate change under the UNFCCC

It was in the United Nations Conference on Environment and Development, generally known as the Rio Earth Summit held in 1992, that the threat posed by climate change was recognised in a major summit attended by the heads of nations. This summit also paved the way for the formation of the UNFCCC which entered into force in 1994. The UNFCCC from its inception had the principle of *common but differentiated responsibilities* (CBDR) enshrined, a major point of contention between the industrialized⁹⁾ and the developing countries, as to who should share the responsibility of the past accumulated GHGs, in the earth’s atmosphere (Kirby and O’Mahony 2017, 145). A broad consensus was reached on the fact that the industrialized countries, whose high industrial growth, energy guzzling transport sector, highly polluting chemical industries, unsustainable consumption patterns etc. had over the last more than a century, led to the accumulation of GHGs in the earth’s atmosphere, which causes climate change. The principle of CBDR acknowledged the fact that the developing countries had less historical responsibility for the emissions that eventually caused climate

8) The European Climate law proposes a legally binding net-zero GHG emissions by 2050 (EC 2020).

9) The UNFCCC recognized the “Annex-1” countries as the source of most past and current GHG emissions and expected these industrialized countries to do the most to cut down emissions. “Annex-1” stands for the list in which these countries were listed out in the Kyoto Protocol document.

change and hence the UNFCCC urged the industrialized countries to own up their responsibility towards historical accumulation of GHGs, to reduce their current share of emissions on the one hand and also, to assist the developing countries who were also essentially pursuing their own paths of economic growth. The industrialized countries headed by the US, Japan and the European countries, all accepted this initially, and got along to join the UNFCCC in climate change negotiations. Following the years after the Rio Earth summit, the various rounds of talks and deliberations were held to build protocols and mechanisms, around the Conference of Parties (COP), institutionalised under the UNFCCC, and tasked with formulating laws and protocols to mitigate global warming and climate change. Eventually this led to the signing of the Kyoto Protocol in 1998, also significantly, the first international agreement which set binding targets on industrialized countries (Kirby and O'Mahony 2017), while exempting the developing countries from emission reductions. The industrialized countries were allocated GHG reduction targets; the US by 7 percent from 1990 levels in the first commitment period of 2008–2012¹⁰) and the EU by 8 percent to be redistributed among the fifteen member states at that time, in varying degrees according to their level of economic development. Japan the host country of the Kyoto Protocol meetings finally agreed on 6 percent reductions after much deliberations, which it claimed was not acknowledging its lead in early energy efficiency gains and hence the cost involved, since the 1970s when such measures were initiated there. In the US, due to the objections from the senate members, backed by the industry and business lobbies who were unwilling to take up the financial burden of GHG reductions, eventually the treaty could not reach the stage of ratification. The opposing groups argued that, the UNFCCC's exemption to the developing countries were putting undue burden on the US economy, whilst at that time, the US¹¹) was the largest economy of the world and

10) Kyoto Protocol first commitment period (<https://unfccc.int/process-and-meetings/the-kyoto-protocol/what-is-the-kyoto-protocol/kyoto-protocol-targets-for-the-first-commitment-period>)

11) China surpassed the US to become the largest emitter in 2007.

the largest emitter of GHGs. Eventually the Bush administration pulled out of the Kyoto Protocol in March 2001, despite concerted efforts by Japan and the EU (Tiberghien and Schreurs 2010). Thereafter, the multi-lateral process for a consensus on post-Kyoto Protocol emission reduction commitments, saw a setback in the 2010 Copenhagen Climate Summit, when the differences between the industrialized countries led by the US, who was noncommittal to any legally binding commitments, and the developing countries led by the G77 grouping, including China and India, led to a failure on the crucial issue of binding commitments. There was a respite to this impasse, in the Durban climate summit in 2011, when the need for binding commitments to all countries was agreed upon in any future agreements. The COP-18 held at Doha in 2012, concluding the ‘Bali Action Plan’ towards the second commitment period of Kyoto Protocol, also saw the disagreement by Japan, New Zealand and Russia, who decided to opt out citing the withdrawal by the US and Canada from the Kyoto Protocol earlier. Thereafter, in the subsequent negotiations during the COP-19 in Warsaw in 2013, an agreement was reached for a prospective treaty to be based on *nationally determined commitments* (NDC), which was the US’ position, rather than legally binding commitments, as argued by the EU, to set the course of future GHG reduction commitments. Subsequently at the COP-21 held at Paris, an agreement was reached in 2015, which laid down a goal to “hold the increase in the global average temperature to well below 2°C above pre-industrial levels”, with an additional ambitious long-term goal to “pursue efforts to limit average temperature increase to 1.5°C above pre-industrial levels recognising that this would significantly reduce the risks and impacts of climate change” (UNFCCC 2015). It was in the Paris Agreement that the member states who were party to the UNFCCC, could come to a consensus for the first time on legally binding GHG reduction commitments.

In 2018 the Intergovernmental Panel on Climate Change¹²⁾ (IPCC)

12) Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change (www.ipcc.ch), which was set up in 1988, by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO).

went a step further and issued a stark warning, that the world has only just twelve years to act for keeping global warming below 1.5°C, beyond which even a half a degree increase will warrant drastic weather patterns, seasons of extreme heat waves, colder temperatures, severe droughts and increased flooding etc. (IPCC 2018). Nevertheless, within two years since the publication of the report, the second largest GHG emitter, the US, under President Trump, officially withdrew from the Paris Agreement in November 2020¹³⁾, the first country to do so, there by pushing the planet at large into a precarious condition than in 2015, when the IPCC had negotiated the Paris Agreement.

A stark warning from the scientific community

Though the Paris Agreement came into effect in November 2016, and as on Dec 2020, an overwhelming 189 out of the 197 Parties have ratified the agreement, which was a remarkable achievement in global cooperation towards the mitigation of climate change. Yet these commitments do not still guarantee the success of the treaty's intended goals and aspirations, according to the recent scientific evidence put forth by climate and environment scientists. The prominent among these voices, is of a group of climate scientists from the Stockholm Resilience Centre, who in its various research reports published over the past years, predicts dire consequences to human life and the ecosystems, if the world does not drastically change its course of current consumption patterns and lifestyle choices. In its research reports which was published in 2018, the Centre assesses the grim scenario in terms of nine planetary boundaries¹⁴⁾ (PB); a term coined by them to identify sectors in which there should be focus, to mitigate human induced climate change. According

13) The US President Trump had announced his plans to withdraw from the Paris Agreement soon after his election victory. Since the agreement stipulates that signatories could give notice to leave only after the expiry of three years after the date of ratification, ie. 4 November 2016 (BBC 2020b), the US formally withdrew from the Paris Agreement only in 2020.

14) Stockholm Resilience Institute (<https://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html>).

to them the world has become already warmer, thereby releasing more GHGs from newer sources, such as the melting permafrost in Siberia and arctic ice, and so on, which is even decreasing the earth's capacity to absorb carbon and avenues to reflect off heat. The report further predicts a scenario, which warns that there is considerable risk that the Earth System is moving towards a planetary threshold, if crossed, will be entering a path of no return, wherein our planet will turn into a "Hothouse Earth". Therefore, it urges for a collective human action to steer away from the potential threshold and stabilize the earth system by actions which may include decarbonization of the global economy, enhancement of biosphere carbon sinks, behavioural changes, technological innovations, new governance agreements and transformed social values (Steffen et al. 2018). It further suggests that resilience building strategies be given higher priority in policy decisions, before the current earth system crosses the planetary threshold, and thereby the door to a pathway for a stabilized earth close.

From an objective to mitigate climate change and reducing GHG emissions since the 1990s, now the international efforts are converging on to finding solutions for the dire predictions of the climate scientists now, as the science around climate change developed since the formation of UNFCCC. The 2015 Paris Agreement also incorporates the advancement in the field of climate science and hence a new consensus has been arrived at to pursue limiting the increment to +1.5°C change on the pre-industrial average global temperature. The various multi-lateral institutions have incorporated the latest scientific research on climate change in their latest year-on-year reports calling for urgent actions all over the world.

Responses to climate change crises by the IPCC, UNDP, and IEA

The stark warning issued by the climate scientists about the necessity for early concrete measures for a net-zero emission world, is reiterated in the just released, 30th anniversary edition of the UNDP, Human Development Report 2020, titled "The Next Frontier: Human Development and the Anthropocene". The report released in the midst of the

COVID-19 pandemic emphatically puts the case of the worrying state of affairs of the world that we are living, where indiscriminate resource use, already existing environmental crises, the pandemic itself and so on, are sending vulnerable societies across the world into much deeper economic crises and invariably into poverty and destitution (UNDP 2020). The report for the first time emphasizes the two key drivers which affect our ecology, material consumption and carbon footprints (Gaurdian 2020), which go hand in hand, since the more you extract and consume resources, the more will be its impact on our ecosystems. Already there is increasing scepticism that the early advances made in the last thirty years since the first edition of the UNDP Report, is being reversed just this last year, since the Covid-19 pandemic related stimulus packages announced by the national governments across the world are being invested in businesses that prop up fossil fuels, and is not being invested in green energy solutions, like renewables. In the year 2020 alone, during the pandemic, due to multiple factors, the stock prices of major carbon intensive businesses listed in European stock markets have suffered larger than average declines in their stock price. The report considers this fact as a signal that financial markets are already witnessing a slump in investments in high carbon intensive companies in oil extraction, air transport and petroleum refining, and hence the long-term effects to the fossil fuel based economies of the world (UNDP 2020, 159). There has been considerable decline in oil prices, just prior to the pandemic and coupled with the pandemic induced lockdowns and economic slowdown across the world, energy demand and consumption had slumped throughout the world. This is also as forecasted in the IEA's earlier assessments in 2020 which predicted the expected slowdown in energy demand in 2020 to be 5 percent lower than in 2019, and the brunt of these reductions to be in carbon-intensive fuels, coal and oil and hence the carbon emissions to be falling to 7 percent, and capital investment in energy sector to be falling by 18 percent in 2020 (IEA 2020). As the pandemic is still in vogue at the time of writing this article, even though some of the economies are opening up, the earlier "gains" due to the slump in carbon emissions, induced by the pandemic related shutdowns,

has narrowed down. The IEA Commentaries, assessing the actual energy related CO₂ emissions, during the year 2020, ratifies the predictions as per the IEA Energy Outlook 2020, and confirms the world's overall energy-related emissions reductions to 7 percent, the largest drop in history, and above five times the size of decline in 2009 following the global financial crisis (Cozzi and Petropoulos 2021). But the economic distress and the human costs of this purported gain in reducing carbon emissions is disheartening, since the brunt of this distress was felt by the poor and marginalised communities across the world, thereby widening the inequalities that existed prior to the pandemic. Therefore, the question is how well can the world drenched in fossil fuels, move towards a sustainable future, to mitigate human induced climate change? Which country from among the industrialised world could play a leadership role in bringing together the other major emitters of GHGs and to make them agreeing to not just reducing their own emissions, but also put their efforts to make other countries as well to commit to carbon-neutrality, and a sustainable future for all?

Part II. Energy sector—the key to combating climate change.

Of all the measures to mitigate human induced climate change adversities, interventions in one sector would make the biggest difference, if implemented on a major scale viz. energy. The energy sector alone contributes to more than two-thirds of the global GHG emissions (IPCC 2020). And according to the current research and reports of the various international bodies viz. the UNFCCC, IEA, IRENA (International Renewable Energy Agency), UNDP, all have unequivocally come to a consensus about the affordability and technical viability of renewable energy, especially solar photovoltaics (PV) and wind energy to be major drivers of the energy transition, which can bring about a transformation to a sustainable energy future, and also one which doubles up as a means to mitigating climate change (IEA 2020; IPCC 2020; UNDP 2020; UNFCCC 2015).

Anticipating this shift, already the fossil fuel export economies in the Middle Eastern region from where the bulk of the petroleum supply

emanates has rolled out their plans¹⁵⁾ to diversify to investments in renewables and alternative technologies since 2016. A prime example being Saudi Arabia, the region's largest oil exporter who is aspiring to shift to a renewable and sustainable economy, as part of its efforts aimed at radically shifting from a fossil fuel export-based economy. According to Saudi Arabia's "Vision 2030" plans, renewable energy projects are being planned including a project, touted as the world's first utility scale wind power farm to be operationalised in 2022 (Arab News 2020). The United Arab Emirates (UAE) is also diversifying to renewables in a big way and it received one of the lowest bids for solar PV projects in the world (IRENA 2019). Among the major economies, which have pledged their carbon-neutral transitions, the EU has incorporated renewable energy development in a remarkable way especially the Feed-in-Tariff for solar PV as a climate action policy for the past two decades. And within it, Germany the largest economy with its *Energiewende*, energy transition programme and Denmark a world leader in offshore wind energy systems stands out.

EU and its path towards climate-neutrality.

The EU currently a bloc of 27 countries, evolved out of the integration process initiated after the World War II. In the 1950s onwards during the initial phase of European integration, the need to secure coal and steel mining and production, essential war making resources of that time, set the agenda of the formation of the ECSC¹⁶⁾, while the need for sectoral integration and supply of nuclear fuels, led to the formation of the EURATOM; and the European Economic Community (EEC) on the other hand was formed with the intent of economic cooperation among the original six founding members. In the 1960s after oil surpassed coal as the major source of energy, the then members could not agree on the

15) Saudi Arabia launched its "Vision 2030" plans in 2016, aiming at a shift away from fossil fuels.

16) The European Coal and Steel Community (ECSC) treaty was allowed to expire in 2002 after existing for 50 years as stipulated during its inception, while the European Atomic Energy Community (EURATOM) continues to function, though with a reduced mandate, than when it was original formed.

EEC to formulate a common response to the security of supply concerns (Birchfield and Duffield 2011, 3) and the members continued to retain their authority over their energy sector. After industrial pollution and its aftereffects to ecology became prominent issues in the 1960s, EEC adopted its first Environmental Programme (EAP) as early as in 1972, though due to lack of any legal basis for environmental policy in its founding treaties, the EAP did not evoke any remarkable effect. Moreover, due of the insistence on unanimity, decision making was a tedious process in the EEC. All of this changed with the inception of the Single European Act (SEA) in 1987, among other things, it gave explicit legal basis for environmental regulation, in the European Council (EC) for certain policy matters related to the environment and strengthened the powers of the European Parliament in the decision making process by removing the veto clause and introducing the qualified majority voting (QMV) (Birchfield and Duffield 2011, 247; Lenschow 2015, 321). As early as in 1990 the then 12 EU member states agreed on a non-binding target for stabilizing CO₂ emissions by 2000 at 1990 levels, acknowledging the functional linkages between climate and energy issues at a Joint Council of energy and environment ministers (Skjaereth et al. 2017, 32). Later with the Maastricht Treaty, which created the EU in 1993, the legal and institutional basis for environmental policy was strengthened, more so with both the QMV made applicable for almost all aspects of environmental policy in the Council and the new co-decision¹⁷⁾ powers vested between the European Parliament and the European Council, as per the treaty. Ever since, the EU has been a frontrunner in adopting frameworks in environmental policy to avoid the earlier overregulation and generate coherent legislative mechanisms to incorporate the new innovative policy avenues put forth by climate change challenges which need horizontal policy measures (Lenschow 2015, 324), across various sectors, viz. industry, transport, energy, agriculture, aviation etc. Currently among the industrialised countries, the most ambitious climate

17) Formally known as the ordinary legislative procedure, the EU Parliament and the European Council adopts legislations by jointly coming to an agreement on contentious issues.

change mitigation policy measures are in vogue within the EU. The EU was there in the forefront from the very beginning of the multi-lateral processes on climate change, even at the wake of the opposition from the US to binding commitments and persistent blockages to the UNFCCC process itself, despite the US being the largest emitter of GHGs when the UNFCCC process had just begun in the 1990s. The EU itself on the other hand was leading by example, and had devised an internal burden-sharing mechanism, which advocated higher emission reductions from its more affluent member states, while giving the lesser developed states within the EU, the leeway to pursue their economic growth. After the Bonn COP-3, the industrialised countries, the so called “Annex-1”¹⁸⁾ countries, within the EU, as per Kyoto Protocol were subjected to emission reductions of 8 percent, whilst Germany the single largest economy within the EU, volunteered for a 21 percent emission reduction, and Portugal, Ireland were allowed to have higher emissions.

In the run up to the ratification of the Kyoto Protocol, the EU played a major role in garnering the required signatories for the treaty itself to pass through, since the treaty had an additional clause which stipulated, the requirement of the support of 55 industrialised countries, who represented 55 percent of the GHG emissions. Despite major emitter countries such as, the US (responsible for a sizeable 36 percent of the emissions in 1990), Canada and Australia as well opposed ratification, the EU persisted on Japan (who was hesitant citing its ally the US’ position on non-ratification) and Russia, to get the necessary percentages for eventual ratification (Gaurdian 2004).

On the domestic policy front to combat climate change, EU developed the very first Emission Trading System (ETS) in 2003, which is a EU wide system for trading in GHG emission allowances, as envisaged in the Kyoto Protocol; the first international carbon trading system to be launched. Though the EU had made efforts to amend the EU-ETS, subsequently over the years, it is still marred by problems of too low carbon prices due to oversupply, generally due to accumulation of too

18) Refer foot note no. 9.

many carbon credits issued over the years.

The European Council, with its vision to play a lead role in the global environmental and climate change negotiations, over the years has pushed up its targets in areas such as climate change and resource efficient low-carbon growth, which is evident from the themes of the sixth and the seventh EAP. As a result, the European Commission formulated the 2008, *Climate and Renewable Energy Package*, aimed at reducing GHG emissions by 20 percent by 2020 (from a 1990 baseline), as well as increasing the share of renewables in total energy consumption to 20 percent, allocating binding targets for individual members, and a higher energy efficiency targets to be achieved by 2020. This was after the European Council's earlier decision setting up the 20-20-20 Target, in the run up to the UNFCCC Copenhagen summit later in 2009, despite the fact that it was a considered as a higher target then (Lenschow 2015, 338). By driving up the targets and initiating policy actions internally within the EU, to begin with, the European Council had aimed to be the leader in setting up the agenda for a post Kyoto Protocol emission reduction mechanism. Yet in the 2009 Copenhagen climate summit, the EU could not succeed in reaching a consensus when it persisted on all the rest of the countries to agree on a higher target it had set. The US who had by then joined back the climate negotiations under President Obama, and the BRICS countries, were opposed to any ambitious targets and eventually eluding a consensus. Nevertheless, in the *Durban initiatives*, as part of the Durban climate summit in 2011, EU played a crucial role which eventually culminated in the UNFCCC Paris Agreement later in 2015.

Within the EU, the pathbreaking Treaty of Lisbon, in 2009 made explicit the need for strengthening policy measures in climate and energy even more further, to accommodate the diverging interests of the EU's affluent member states and the new members from the Eastern Europe with underdeveloped economies (Buchan 2015, 347). And by February 2010, the EU Commission had a Director General¹⁹⁾ (DG) Climate

19) The post of Director General (DG) in the EU Commission is the equivalent of a minister in other political systems.

Action in place, separating climate change policy from DG Environment, the equivalent of a minister in role and call. All of these measures show how the EU was ardently framing its climate change response and action by taking an early lead in comparison to the other industrialised countries.

In the run up to the 2015 Paris Summit, the EU Council announced the “2030 Climate and Energy Framework”, in 2014 furthering its GHG reduction ambitions. This time around, GHG reductions were sought to be reduced by 40 percent by 2030 compared to a 1990 baseline and increasing the share of renewables to 27 percent. EU, by stepping up its GHG reduction targets internally before the major climate change summit negotiations, and achieving them, drives the deliberations and is a pace setter in global multi-lateral climate change negotiations.

Challenges within the EU

The addition of new member states to the EU, especially the Central and East European Countries (CEEC), in 2004 and 2007, still in their varying phases of development, and exceedingly reliant on Russian oil and gas supplies, opened up a new challenge to the EU. Poland and Estonia in particular had their energy sector heavily reliant on coal. Poland which relies on its indigenous coal for more than 90 percent of its electricity generation has positioned it as the informal leader of the CEECs and the Visegrad²⁰⁾ countries, opposing the EU’s ambitious energy and climate change policies within the EU. These member states are opposed to adjusting to the higher emission standards and renewable energy targets set by the EU, without adequate compensation to the losses to their economies, demanding for more subsidies to modernize their energy systems and urging the other affluent EU members to share their burden (Skjaereth et al. 2017, 140). The industrialised affluent members are extending their efforts in assisting these climate laggards, using mechanisms such as the EU-ETS, the Clean Development Mechanisms to transform their energy consumption patterns. The Just

20) Visegrad (V4), is a group of four countries viz. Poland, Hungary, Czechia and Slovakia.

Transition Mechanism²¹) (JTM), a Euro 150bn, loans (for 2021–2027) to assist member states for a transition towards carbon-neutrality announced by the EU in early 2020, is to address the concerns of the CEES countries. Nevertheless, the very fact that member states, within the EU with divergent lifestyles, economic systems and growth aspirations, are accommodating and negotiating within the EU, moving towards common pathways on climate action is a template which the EU is projecting in its climate negotiations in the multi-lateral fora.

Conclusion:

Awareness towards climate change and the impending crises are now being felt, with increasing severity due to the climate-related natural calamities like floods accompanying excessive rains or typhoons, extreme heat waves and sea level rises, and so on occurring in various degrees all around the world affecting people's lives and livelihoods. The latest scientific research on climate change suggests that the window of opportunity to initiate climate actions are also narrowing down. The industrialised countries with their overdependence on fossil fuels for their energy needs have come to a consensus about the need for urgent action to a transition to renewables and hence the heightened multi-lateral efforts under UNFCCC to find carbon-neutral pathways. The civil society movements like *Fridays for Future*, have in the recent times, amplified the severity of the crises through their activism, most importantly among the youth.

Amidst this gloom, the EU has set itself as a beacon, in the forefront, initiating policy changes by combining both climate change mitigation and energy policies for more than a decade now. Though the US under President Biden has announced its intentions to re-join the international community in climate change action, its past record of two withdrawals from the UNFCCC negotiated treaties, coupled with the prevailing domestic scenario, does not offer it any leverage to be in the leadership role for climate change action. In this scenario, the EU with its positive

21) The Just Transition Mechanism (https://ec.europa.eu/commission/presscorner/detail/en/IP_20_930).

efforts in building up consensus, demonstrated over the last three decades during the UNFCCC's protracted climate change negotiations and decision-making processes, would be a force to reckon with in the years to come.

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