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Climate change, COVID-19 and war: Triad Litmus Test questioning the conscientiousness for collective action

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1. INTRODUCTION

The social processes of industrialisation, modernisation and globalisation create drastic and threatening interventions in human living conditions, particularly in terms of the development of productive forces, market integration, and the relationships that exist between property and power. These social processes continue to prod societies and nation states into the cycle of 'what ifs' and 'maybe'. But again, due to unintended maybes, such pursuit of quantum growth over the years by scientists or science and technology, policymakers, sovereigns, and so on has resulted in errors and deceptions under the guise of acceptable maximum regulation of composition uncovered through proof of causality, coupled with practical experiences of side effects by people in societies. To achieve sustainable development, there is a need to pioneer and/or contribute to debates, queries, and enquiries confronting [in]actions, policies, initiatives, and interventions instituted – or not – to maintain the environment at a life-sustaining level with the attendant economic development. Therefore, the begging question: Are clamours for sustainability merely rhetoric, echoed and re-echoed only when convenient, or are they conscientiously adhered to while pursuing economic prosperity? In other words, can an efficiency-based cost-benefit analysis yield realistic solutions to the implications of global warming? Underlying the triad of climate change, COVID-19, and the Russia-Ukraine war as litmus tests, the focus, in this instance, is to criticise posturing deputising effective actions instituted so far in the wake of a global call for sustainable practices, while striving to realise prosperous economic well-being. More precisely, the merits of the adopted actions, which are considered both superficial and outcomes of 'what ifs' and 'maybes' somewhat more concerned with economic growth and less with sustainable development and dodgy in the petition for holistic approaches to sustainability, are underscored. Accordingly, this commentary scrutinises the adulteration of solutions through policy options; COVID-19 emission scenario as a litmus test of shared commitment, and the hypocrisy on

display from the Ukraine-Russia War, where economic prosperity seems to trump climate-change efforts.

2. GLOBAL ONTOGENY OF CLIMATE CHANGE – THE PROBLEM AND SOLUTION

During the 20th century, human activities from anthropogenic processes have contributed considerably to climate change (Rahman, 2012: 3; IPCC, 2018), by increasing carbon dioxide (CO₂), methane (CH₄), and other heat-retention gases such as nitrous oxide (N₂O) and chlorofluorocarbons (CFCs), collectively called greenhouse gases (GHGs) in the atmosphere. Gupta (2014: 3) referred to it as a post-industrialisation problem caused by net emission of GHGs. The recognition that climate change and its mementos is a global crisis necessitates a concerted effort to mitigate and adapt. Global governance entrenched in sustainable development to curb GHGs emission started with the 1972 United Nations Conference on Human Environment in Stockholm, where the United Nations Environment Program (UNEP) was established.

Of particular importance are United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol (Gupta *et al.*, 2007), and the Paris Agreement (Schellnhuber, Rahmstorf & Winkelmann, 2016). Apropos most of the empirical studies, the burning of fossil fuel for energy demands forms the bulk from which GHGs are emitted (Kumar *et al.*, 2021: 2), and economies globally thrive on fossil fuel usage. This is why Lenz and Fajdetic (2021: 14) not only pointed out that the impact of globalisation on the environment has often been evaluated as negative,

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but also validated conclusions of empirical studies by, among others, Rahman (2013), Akin (2014), Zhang, Liu and Bae (2017), Kalaycı and Hayaloğlu (2019), that increase in globalisation and international trade cause a direct proportional increase in GHG emissions and an indirect increase in environmental and climate degradation.

The conundrum whether to uphold environmental sustenance to the detriment of economic growth or darn climate change and its associated impacts, to pursue aggressively, economic prosperity heralded clean development mechanism (CDM), joint investment (JI), emission trading (ET),¹ and nationally determined contributions (NDCs)² as mechanisms capable of promoting emission reduction and economic advancement simultaneously. These mechanisms, whether fraught with tremendous benefits (environmental and economic) or not, have endured wide criticisms ranging from their tendencies as a recipe for economic war (referring to direct carbon tax) to their propensity to place carbon emission crisis in abeyance.

For example, McLean *et al.* (2018) argued that the intended nationally determined contributions, mostly submitted by key countries in the periods leading to conference of the parties (COP21),³ were insufficient in terms of medium-term emissions reductions. Others are concerned that most of the proposed solutions to mitigate GHG emission will in all likelihood be costly and ineffective (Rebecca *et al.*, 2018). Compatible with emission reduction goal-setting theories, which Rahman (2013: 5) and Leonardi (2017: 65) credited to leading scientific authorities on climate change Hamza *et al.* (2020), it seems improbable to significantly reduce the risk of global climate change, since everyone benefits from anthropogenic activities leading to GHG emission while demanding that specific countries, firms, and individuals must bear the cost. Besides, while some businesses

and countries perceive climate change as a serious threat to their industries (Rebecca *et al.*, 2018), others, however, recognise in it advantages to promote green energy innovation and technologies robust with potentials to mitigate the risk of climate change, by reducing the atmospheric concentration of GHGs provided in CDM, JI, ET, and NDCs. But have they? Or are the mechanisms outcomes of series of 'what ifs' and 'maybes' with an expectation of a favourable result, while adhering to the principles of neoliberalism: 'no market, no future'.

3. ADULTERATION OF SOLUTIONS: ENTERS POLICY OPTIONS FROM 'WHAT IFS' AND 'MAYBES' CUTTING CORNERS

GHG emissions reduction across all sectors demands a portfolio of bespoke policies to meet national circumstances (Gupta *et al.*, 2007: 747). It is worth mentioning that there is often the plausibility that voted mechanisms responsible to accomplish all identified policies can be poorly or well designed, loosely or strictly enforced, or even politically resistible or irresistible. Gupta *et al.* (2007: 747) subsumed under four themes the predominant criteria policymakers use for designing, monitoring, and evaluating policies – environmental effectiveness, cost-effectiveness, distributional effects (including equity), and institutional feasibility. Mindful of this, it is fitting to present a rough and ready evaluation of the emission-reductions mechanisms adopted on-set the Kyoto Protocol, to resonate, albeit banal, the intrinsic fallacy of CDM, JI, ET and NDCs to reduce GHGs emission. It is the contention of this commentary that, more than likely, these instruments do more to expand it.

Baudry, Faure and Quemin (2021) and characterize situations where the trading costs depress or raise permit prices relative to frictionless market conditions. We calibrate our model to annual transaction data in Phase II of the EU ETS (2008-2012: 2), in an attempt at historical retell, intimated

to the readers that the theory of Emission Trading (ET) led off from the seminal works of Coase (1960), Crocker (1966), and Dales (1968) and the subsequent formalisation by Montgomery (1972). Since then, and according to them, ET has become crucial in the climate-change mitigation regulatory toolbox. For instance, in the United States, trading of nitrogen oxides (NO_x) and sulphur dioxide (SO₂) dates back to the 1990s (Hepburn, 2007: 376). Still, there is a systematic difference between the practice pre- and post-Kyoto Protocol; a manifestation evinced in the sheer scale of current enterprise based on climate governance. Emissions trading systems (ETS) is now a widely used climate and energy policy instrument (Quemin & Trotignon, 2021: 1). In theory, Reyes and Gilbertson (2012: 69) argued that ET provides a cost-effective and efficient means to limit GHG reductions within an ever-tightening cap, albeit in practice, it rewards major polluters with profits, while subverting attempts to lessen pollution and attain a more sustainable economy.⁴ How so?

The cap-and-trade approach, for example, is a market-oriented environmental policy which puts limits on emission, while also proving a price for further emissions. It is implemented by a market in compliance credits (Cheng, Engel & Wellman, 2019). As such, entities obtain permits (also called allowances) – bought or sold at prices determined by a recognised trading system such as the EU ETS, which covers whatever they emit after attaining their limit. Simply put, state governments or inter-governmental bodies give out licenses, likewise called carbon permits, to major industries to pollute the environment. Like the cap-and-trade, carbon offsetting is another approach in ET mechanism. Carbon offset programmes present organisations and individuals with an opportunity to compensate for generating emissions through the financial support of actions or projects that remove CO₂

1 See IPCC (2018)

2 See IPCC (2018)

3 The 2021 United Nations Climate Change Conference

4 In an earlier article, Hepburn (2007: 378-379) recounts words of scholars detailing the duplicitous trait of ET.

from the atmosphere (Naus *et al.*, 2020). Governments, companies, institutions, individuals, among others, fund projects certified by the United Nations (UN) as 'emissions-saving', outside capped area, thereby granting the project sponsors a right to emit GHGs in their area.

While critiquing the acclaimed reduction mechanism, McAfee (2022: 171) universities, and businesses of all sorts have pledged to achieve "net zero" greenhouse gas emissions partly or entirely through offsetting projects, many of which rely on so-called nature-based solutions (NBSs argued that offsets are meant to compensate for damage caused by emissions from one site, by absorbing or preventing the release of an equivalent amount of GHGs elsewhere. Carbon offsetting simply transfers emission reduction through projects under the framework of CDM or JI to places cheapest to make reductions. In most instances, from countries of the Global North to those in the Global South. The foregoing ingeminates Leonard's (2017: 71) question: "Why are policymakers so reliant on carbon markets when empirical evidence suggests that they do not work?"

4. COVID-19 EMISSION SCENARIO – A LITMUS TEST OF SHARED COMMITMENT

Granted, there is yet to be an all-encompassing up-to-date report concerning the impact of COVID-19 (scientifically referred to as the severe acute respiratory syndrome–coronavirus 2 or SARS-CoV-2) on GHG emission along with an assessment on CO₂ emissions, global economy, energy influence, and sustainable policies for a better future (Kumar *et al.*, 2021: 2). Still, a growing number of studies on COVID-19 and GHG emission prove that, during the initial lockdown period, restrictions on almost all aspects of the economy substantially reduced the emissions of CO₂. The unannounced entrance of COVID-19 on 30 December 2019 and its subsequent declaration by World Health Organization (WHO)

as a public health emergency of international concern on 30 January 2020 (Zanke, Thenge and Adhao, 2021: 49) and a pandemic on 11 March 2020 (Forster *et al.*, 2020: 913) compelled instantaneous government actions for basic safety measures in limiting the virus or inactions (considering the early days of scepticisms). Consequently, the world was meted with COVID-19 global restrictions such as wearing facial masks and social distancing (Koonin *et al.*, 2020).

In a scholarship by Kumar *et al.* (2021: 2) on COVID-19 and emission, leveraging empirical studies, the authors posited that the strict COVID-19 measures adopted to abate the spread of the virus significantly decelerated economic activities globally. This, in turn, imparted the environment positively, by lowering GHG emissions, especially atmospheric CO₂ levels. Their position validate studies such as Forster *et al.* (2020), Smith, Tarui and Yamagata (2021), among others, on the noteworthy and yet unprecedented influence the pandemic has had on global energy consumption and GHG emissions. Liu *et al.* (2020) analysed emissions data for six economic regions across 69 countries. Results from the study showed that a total of 17% of reduction in daily CO₂ emissions was observed by April 2020 as against the mean level of the preceding year. Similarly, Forster *et al.* (2020), using national mobility data to estimate global emission reductions for ten species between February and June 2020, discovered that NO_x emissions decreased by 30% in April, thus adding to a short-term cooling since the start of 2020. In addition, due to the decreased fossil fuels consumption during the first quarter of 2020 compared to the first quarter of 2019, global CO₂ emissions declined by 7.8%. As per estimation for the whole of 2020, data for CO₂ emissions revealed that there was a decline in CO₂ emissions compared to 2019; 7% according to reports from International Energy Agency (IEA) (2020) and 8%, based on Enerdata 2020 reports (UNEP, 2020). Further estimates from

The Organization for Economic Cooperation and Development (OECD) (2021) projections are that, by 2025, COVID-19 and associated prevention measures would lead to a regional decrease in GHG emissions in virtually all countries.

Empirical evidence for now (until otherwise empirically refuted) shows that the limitations posed by COVID-19 on mobility to reduce transmission of the virus substantially influenced the emission levels globally. As threatening to human health as COVID-19 is, it affected global GHG emissions in the early period of its emergence (Bai *et al.*, 2020). For lack of control over the COVID-19 scenarios, stricter measures even though inconvenient were adopted to limit mobilities, thus leading to reduced emission. A juxtaposition of the two scenarios from ET (pre-COVID-19) and during the early days of COVID-19 paints an obvious picture of the level of conscientiousness global leaders devote to climate change. Ironically, the adverse effect of GHGs emission continues to be felt to date but, because negative effects lack the capacity to halt the activities of economies globally, temporary and superficial solutions still enjoy patronage from parties' concern with climate negotiation, compared to COVID-19, when a drastic rate of infection and subsequent death necessitated radical policies, even if economies took a hit.

5. UKRAINE-RUSSIA WAR: THE HYPOCRISY ON DISPLAY – ECONOMIC OVER CLIMATE CHANGE

The war between Ukraine and Russia puts on display the duplicitous commitment to reduce GHG emission, especially by European countries who, over time, have commissioned mechanisms and instituted ambitious policies to reduce emission. According to the UN, between the night of 23 and dawn of 24 February 2022, Russia launched a military offensive in violation of the territorial integrity and sovereignty of Ukraine in conflict with the principles of the Charter

of the United Nations (UN Report, 2022). As Russia rains bombs on Ukraine, oil and gas from Russia continues to flow through networks of pipes crisscrossing international borders to Western nations. Russia's unprovoked invasion of Ukraine has upset geopolitical and markets energy, forcing the price of oil and gas to reach their highest in almost a decade (Politico, 2022). This situation has resulted in many countries re-evaluating their energy supplies sources. On this note, it not only becomes necessary but also informative to highlight, through reportage, the sheer dependency on Russia's oil, simultaneously putting on display the convenient pursuit of GHGs emission reduction.

In an article for CNBC, on Monday 20 June 2020, Meredith (2022) wrote: "The situation is serious": Germany plans to fire up coal plants as Russia throttles gas supplies. Reporting for CNBC, Meredith credited the statement, "the situation is going to be 'really tight in winter' without precautionary measures to prevent a supply shortage, in light of that, Germany will seek to compensate for a cut in Russian gas supplies by increasing the burning of coal", to Robert Habeck, the current Economy Minister of Germany. Splashed as a headline by *The Economic Times*, 23 June 2022, is "European countries turn back to coal as sanctions on Russian energy backfire." A disturbing development in the fight against climate change was mentioned in the body of the article. It read: "Germany, Austria, Poland, The Netherlands, and Greece are among the first European nations to reopen coal plants or take measures to support coal power."

In an article in *CBC News*, published on 25 June 2022, Singh, Bernstein and Hopton (2022) wrote: "Europe turns back to coal: A 'temporary' measure in response to Russian gas cut." Ironically, the article noted that European leaders claim that the turn to coal is temporary and that the European Union's (EU) climate plan is still on track. *Global Times* captured rather well the severity of the war situation between Russia and Ukraine on climate change in their

article – "Europe's restart of coal-fired generators to worsen climate change" – published on 21 June 2022 (Weijia, 2022). On 30 July 2022, POLITICO featured an article titled, "Russia's war is a short-term win for coal." The article added further that the EU is seeking both brown and green energy solutions, and as of that moment, coal is definitely an option. In a statement attributed to Deputy Prime Minister Jacek Sasin of Poland, POLITICO quotes it as: "We want coal energy to function in Poland in a much longer perspective than until 2049."

6. CONCLUSION

This commentary is intended to form a single argument on how the trio are, in a manner of speaking, the monsters created by human civilisation. In this commentary, the observers set in a wider context the overarching research question: If the clamours for sustainability are only rhetoric, echoed and re-echoed at times of convenience, or are they rhetoric conscientiously adhered to, whilst pursuing economic prosperity?, as the article tried to argue, by juxtaposing the two scenarios from ET (pre-COVID-19) and during the early days of COVID-19. On the canvas upon which the arguments were sketched, the level of conscientiousness global leaders devote to climate change becomes very clearly visible. Not to mention the duplicitous commitment to reduce GHG emissions, especially by European countries who, over time, have commissioned mechanisms and instituted ambitious policies to reduce GHGs emission. If anything, the Russia-Ukraine war puts on display the hypocrisy that has surrounded the reduction of GHG emission over time. This is more often than not characteristic of the 'what ifs' and 'maybe' schemes such as those which ET fondly adopted only when suitable.

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