

Policy Approach for Green and Resilient Covid-19 Economic Recovery

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POLICY APPROACH FOR GREEN & RESILIENT COVID 19 ECONOMIC RECOVERY

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Message from the Vice-Chairman



GreenTech Foundation Bangladesh has been established as a non-profit organization under societies Act and committed to promote Sustainable Development Goals (SDG). The Foundation specifically targets certain key areas of SDGs covering- quality education; clean and green energy; decent work and economic growth; sustainable and green financing; green investment and products; green industry, innovation and infrastructure; sustainable cities and communities; responsible consumption and production; climate action; life below water; life on land; and partnership for the Goals.

We all are currently in the Covid-19 warfront. Policy makers of the global economies have come up with economic stimulus packages, and working for quick recovery. The efforts of organizing a Webinar and publishing a research paper on the greening of these stimulus packages is an attempt to highlight the benefits of a ‘green and sustainable recovery strategy’ for the sustainable recovery of the global economies with special reference to Bangladesh.

This publication titled ‘Policy Approach for Green and Resilient Covid-19 Economic Recovery’ is a special effort in response to this unprecedented development and the policy intervention for economic recovery. I pay thankfulness to the designated speakers of the Live Webinar and the audiences for their valuable comments and contributions. I also appreciate the efforts of the author for preparing and presenting the keynote paper.

I wish, policymakers and other stakeholders would be benefitted out of this effort of the GreenTech Foundation Bangladesh.

Prof. AKM Saiful Majid, Ph.D.

Forewords by the Executive Director



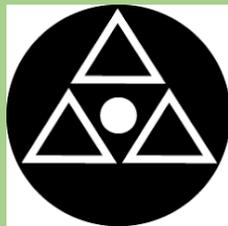
GreenTech Foundation Bangladesh has been engaged to promote certain areas of Sustainable Development Goals (SDG) to support policy makers, businesses, and other private and public sector stakeholders. Established as a non-profit organization, the Foundation specifically focuses on key goals and targets of SDGs of the United Nations.

This publication titled ‘Policy Approach for Green and Resilient Covid-19 Economic Recovery’ is a special effort of Green Tech Foundation in response to the unprecedented development due to Covid-19 outbreak. Before finalizing this publication, the draft paper has been presented in a Live Webinar on June 09, 2020 to draw inputs on relevant issues. I pay thankfulness to the designated speakers of the session and the audiences for their valuable comments and contributions. I appreciate the efforts of the author.

This online publication, the first of its kind, I hope, would attract attention of policymakers, academicians, and researchers. Green Tech Foundation Bangladesh would also welcome comments and suggestions on the issues contained in this publication.

Lutfor Rahman Ph.D. (Fellow)

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The draft paper was presented in a Live Webinar on May 09, 2020 and has been finalized by accommodating the inputs of the event. The author pays gratitude to the The author is grateful to Professor Barkat-e-Khuda, Ph.D, Dr. Muzaffer Ahmad Chair Professor, BIBM for his valuable inputs in finalizing the paper.

The author is thankful to the GreenTech Foundation Bangladesh for this timely event designated speakers of the event: Dr. Atiur Rahman, Former Governor Bangladesh Bank and Founder, Annoying Somonnoy; Dr. Atiq Rahman, Executive Director, Bangladesh Center for Advanced Studies (BCAS); Dr. A K M Saiful Majid, Chairman, Grameen Bank and Vice Chairman, GreenTech Foundation Bangladesh for their opinions and inputs in the webinar.

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Professor Shah Md Ahsan Habib, PhD

**Policy Approach for Green and Resilient Covid-19
Economic Recovery**

Segment-1: Covid-19 and the Associated Natural Destruction Point to the Necessity of Changing Policy Approaches

With the modernization efforts and rushed development process, the world witnessed emergence of a striking number of novel epidemic and pandemic viruses and the comeback of some known viruses. A wide range of factors¹ are considered to be responsible: increased population density of humans, animals and plants; increased travel and movement of human being; increased transportation of animals, plants and other commercial goods by ship; deforestation and afforestation; urbanization and irrigation projects²; and increased numbers of relocation of people.³ In addition, during recent decades, climate change has been noted as a major factor on the emergence of these diseases.⁴

As part of its development endeavors, human society has continuously been engaged in challenging the natural order. On the way to attain ambitious growth, humans are harvesting the natural resources of the planet and plugging them into an industrial cycle making available various consumables with a lot of waste. This process depletes the natural ability of the environment to balance itself and disrupts ecological cycles. In addition, some new technologies alter the way that the people interact with their natural environment, and some of the fundamentally unnatural interventions resulted in huge debate.⁵ In spite of several benefits, there are opinions that these highly debated unnatural interventions like genetically modified crops and animal cloning ‘threaten the natural order.’ These activities brought in two competing fronts: hope and fear. The fear because of the perception of a section of people that the scientists are abusing their knowledge, and interfering with the nature. The hope with the view that it is possible to shape nature to draw optimum human welfare. Under the banner of ‘geoengineering’ there are attempts to control nature on an unprecedented scale.⁶ Practically, all these over exploration efforts, hasty development attempts, rapid modernization endeavors, and over ambitious policy interventions without respecting the natural order appear to be the responsible factors for today’s misery- the Covid-19 Crisis. It is perceived to be a hidden side effect⁷ of the ongoing economic development approach.

¹ In a recently research published in WHO web notes that the apparent increase in many infectious diseases like HIV/AIDS, hantavirus, hepatitis C, SARS, etc. in the globe reflects the combined impacts of rapid demographic, environmental, social, technological and other changes in our ways-of-living (<https://www.ncbi.nlm.nih.gov>).

² Modernization and production ventures like dams, irrigation, agricultural intensification, deforestation, new habitation and urbanization creates foundation for a number of infectious diseases like, Cholera and Dengue created pathway through water contamination and mosquito breeding (Habib, 2020).

³ For example, ocean travel using ships brought remarkable mobility in the globe. There are evidences that rodents, a very successful travelers of the oceans, were responsible for several rodent-associated viruses that are endemic to North America are genetically very close relatives of African viruses. They almost certainly arrived in the Americas on cargo or slave ships via infected rodents (Tanem et.al, 2006).

⁴ Changes in infectious disease transmission patterns are a likely major consequence of climate change. There are historical evidences of associations between climatic conditions and infectious diseases. Malaria is of great public health concern, and seems very sensitive to long-term climate change. Excessive monsoon rainfall and high humidity were identified as a major influences, enhancing mosquito breeding (WHO, 2020).

⁵ For example, agricultural biotechnology involves manipulating the genetic structure of plants; debate about genetically modified crops, as well as the cloning of animals.

⁶ In 1970, ‘The End of Nature’ published by the environmentalist Bill McKibben argues that the natural systems could no longer be considered independent from human influence; and in recent time he notes, anthropogenic climate change marked a definitive shift and now the nature is fundamentally linked to choices made by human societies. His comments indicates the extent of intervention, ‘by the end of nature I do not mean the end of the world. The rain will still fall and the sun shine, though differently than before. When I say ‘nature’ I mean a certain set of human ideas about the world and our place in it.’ (Corner et. al, 2013).

⁷ Pandemics are often a hidden side effect of economic development (World Economic Forum, 2020).

The speed and scope of the covid-19 outbreak surprised and halted the globe, as had happened many times earlier, but, in the much bigger way⁸. The corona regime revealed that the existing development approach and production environment have congenial environment for transformation and emergence of new diseases, and carrying on the existing approach and process would mean taking the humanity closer to the destruction. Thus, it seems logical to argue that the responses to the covid-19 crisis and the recovery drive should not be limited to containing the spread of the virus only; rather it is important for the policy makers to comprehend the deep rooted causes of the current destruction and design recovery drive by respecting the ‘mother nature’. It is proven over and over again that nature bites back.⁹ If not addressed, the situation forces¹⁰, and would force us to do so by scripting another even graver ‘Corona Episode’ in near future.

In response to the wide spread virus contamination and economic implications, the policymakers around the globe are providing unprecedented support to households, firms, and individuals. In spite of resource limitations, almost all developing countries came up strongly with stimulus packages to support their economies. Responding quickly, the Government of Bangladesh closed education institutions, declared general holidays for public and private offices (other than offices engaged in offering essential services) and encouraged all non-essential businesses to shift their activities online. In remarkable ventures, the policymakers came up with economic stimulus packages through several declarations. Will these policy interventions and recovery drives solve this deep rooted crisis? Considering the backlash of the nature, there are growing recommendation and recognition that the ‘recovery stimulus packages’ and the associated drives of the global economies should be designed and enforced with the goal of addressing the challenges of ‘environmental destruction’ and ‘natural disorder’ for their long term implications. The paper is an attempt to analyze information to reflect the necessity of shaping policy approach for green and sustainable recovery drives to handle the Covid-19 scenario.

The keynote heavily draws on recently published resources related to Covid-19 and associated policy drives and environmental concerns. The paper has been presented in a webinar and finalized by accommodating the inputs of the event. Initiating with the background and methodological issues in the segment-1; the subsequent segments dealt with the necessity of addressing environmental and natural disorders; existing policy approaches; and opinions, evidences and prescriptions for green and sustainable recovery measures; before putting forward a set of green and sustainability screening factors and check list (segment-5) and concluding remarks (segment-6.)

⁸ In case of great depression, stock markets collapsed, credit markets froze up, unemployment rates soared and GDP contracted taking 1-3 year-time, in the current crisis, similar terrible macroeconomic and financial outcomes have materialized in three weeks; it is so sudden that the Covid-19 crisis has been termed as a severe natural disaster like earthquake by many that damaged assets and resources abruptly (World Economic Forum, 2020).

⁹ In 1958, the then president of China Mao Zedong started campaign to kill sparrows to support agricultural production; the problem with the Great Sparrow Campaign became evident in 1960 when it was realized that sparrows, didn't only eat grain seeds, they also ate insects. With no birds to control them, insect populations boomed. Locusts, in particular, swarmed over the country, eating everything they could find — including crops intended for human consumption. The impact of this ill-conceived decision caused a domino effect of destruction and resulted as many as 45 million people were dead. (Mother Nature Network, 2013).

¹⁰ Hundreds of millions of sparrows were killed during the Sparrow Campaign, but it wasn't long until the imbalance in the ecosystem became apparent The Chinese government eventually resorted to importing 250,000 sparrows from the Soviet Union to replenish their population (Pantsov and Levine, 2013).

Segment-2: Covid-19 Affecting and Reminding the Interconnections between Nature and the Human Health that Necessitate Immediate Action

Several articles came up with logical connections between nature and human health in the context of the Covid-19 scenario. According to the WWF (2020b) ‘everything on our planet is interconnected and we are part of the equation’. Nature is our life-support system, and healthy natural systems provide so many essentials like water, clean air, fertile soils and a stable climate; and they also give us food, medicines and materials and directly underpin our economies (UNEP, 2020c). Unfortunately, human activities are placing these natural systems under greater and greater stress, and in turn exposing our society and economies to increasing nature-related risks, Covid-19 is a reminder that human health and environmental health are closely linked (UNDP, 2020a). IPBES (2020) rightly notes, there is a single species that is responsible for the Covid-19 pandemic – us; and adds, rampant deforestation¹¹, uncontrolled expansion of agriculture, intensive farming, mining and infrastructure development, as well as the exploitation of wild species have created a ‘perfect storm’ for the spill over of diseases from wildlife to people.¹² Human activities have already destroyed a lot of the ecosystem (Box-2.1). If climate issues are not addressed in the world’s future initiatives, a grave scenario will be awaiting.¹³ It is evidenced that there are parallels between the lagging global efforts to address both the Covid-19 pandemic and the climate crisis and both demand early aggressive action to minimize loss (Sengupta, 2020).

Box 2.1: Ecological Destruction by the Human Activities	
Earthly Ecosystem	Lost more than 85% of Wetland; destroyed 32% of the World’s forest area; degraded one-third of the World’s topsoil
Oceanic Ecosystem	55% ocean area is covered by industrial fishing; 33% fish stocks are overfished; 50% of the coral reef system destroyed
Loss of Species	83% freshwater species declined since 1970; 60% vertebrate declined since 1970; 41% known insect declined during last
Note: based on IPBES, 2019; The Economist, 2019; and World Economic Forum, 2020.	

¹¹ A 2019 study found that a 10% increase in deforestation would raise malaria cases by 3.3%; that would be 7.4 million people worldwide. Yet despite years of global outcry, deforestation still runs rampant. An average of 28 million hectares of forest have been cut down annually since 2016, and there is no sign of a slowdown (Scientific American, 2020).

¹² While the origin of the Covid-19 virus is yet to be established, 60% of infectious diseases originate from animals, and 70% of emerging infectious diseases originate from wildlife. The Globe have lost 60% of all wildlife in the last 50 years, while the number of new infectious diseases has quadrupled in the last 60 years. It is no coincidence that the destruction of ecosystems has coincided with a sharp increase in such diseases (World Economic Forum, 2020).

¹³ By 2100 researchers project that climate breakdown could kill approximately as many people as the number of individuals who die of cancer and infectious diseases today if global warming is not limited to 1.5 degrees Celsius (Sengupta, 2020).

The pandemic is a reminder of the intimate and delicate relationship between people and the planet (WHO, 2020). There are about 8 million species of life on the earth, of which humans are just one. Of these, an estimated 1.7 million unidentified viruses, recognized as the type that may infect people, existing in mammals and water birds; and any one of these could be transferred to humans, if preventative measures are not undertaken immediately (UNEP, 2020c). While this relationship is complex and context-dependent, the general trend is that habitat loss¹⁴ increases the likelihood that species carrying potential viruses¹⁵ are in close proximity to people (Fevre and Naomi, 2020). Climate change is another key force which in the longer term is likely to be a growing driver of the emergence of zoonotic disease outbreaks (WWF, 2020a). The most fundamental way to protect ourselves from these zoonotic¹⁶ diseases is to prevent destruction of nature, where ecosystems are healthy and biodiverse, they are resilient, adaptable and help to regulate diseases (UNEP, 2020c). To help prevent the next pandemic, it is essential to transform human’s relationship with nature (WWF, 2020b). This is crucial because ecosystems in nature function similarly to the human body: if there is diverse species and space for healthy animal populations- they are more resistant to disease, and thus taking care of nature means taking care of human society (Price, 2020c).

Unfortunately, the Covid-19 scenario brought in even more environmental disruption in certain fronts. Poaching and deforestation have increased since COVID-19 restrictions went into effect, while bush meat and ivory poaching incidents have become more frequent in Africa; Amazonian deforestation in Brazil has reached a nine-year high since the pandemic began; these destruction of nature could cause future animal-borne disease outbreaks (Price, 2020b). Another unpleasant truth is that the corona crisis is interrupting the ongoing green and sustainable development agenda like the implementation efforts of the UN (United Nations) Sustainable Development Goals or SDGs (Box 2.2).

Box 2.2: Impact of Covid-19 on Green Ventures associated with SDGs	
SDG-3: Good Health and Well Being	▶ Devastating Impact on Good Health and General Well-Being
SDG-2: Zero Hunger	▶ Disrupted Food Production and Distribution Supply Chain
SDG-6: Clean Water and Sanitation	▶ Supply Disruption and Inadequate Access to Clean Water ▶ Hindrance in Water Supply for Clean Handwashing Facilities
SDG-7: Affordable and Clean Energy	▶ Disrupted Access to Electricity in a Situation of Emergency ▶ Service Disruption due to Personnel Shortage
SDG-13: Climate Action	▶ Low Climate Footprint due to Less Production and Transportation ▶ Reduced Commitment to Climate Action
SDG-17: Partnership for the Goal	▶ Increased Attempts of De-globalization and Restriction ▶ Necessity of Greater Cooperation and Collective Action
Note: Author’s preparation based on Amfori, 2020 and UNDESA, 2020.	

¹⁴ When an area of land is deforested and converted to agriculture, or used for infrastructure development, it reduces the natural habitat available to species and can bring them into more regular contact with each other as well as humans (WWF, 2020).

¹⁵ The transmission of zoonotic diseases from animals to humans has long been recognized as a serious threat by global health experts, and 75% of all emerging diseases come from wildlife, with recent years witnessing the emergence of SARS from civet cats and MERS from dromedary camels (WWF, 2020).

¹⁶ Zoonotic diseases are infectious diseases that are naturally transmitted between animals and humans. General strategies for preventing zoonotic diseases include reducing deforestation, ending the illegal wildlife trade, and improving hygiene in settings where interactions with animals are commonplace (Connors, 2020).

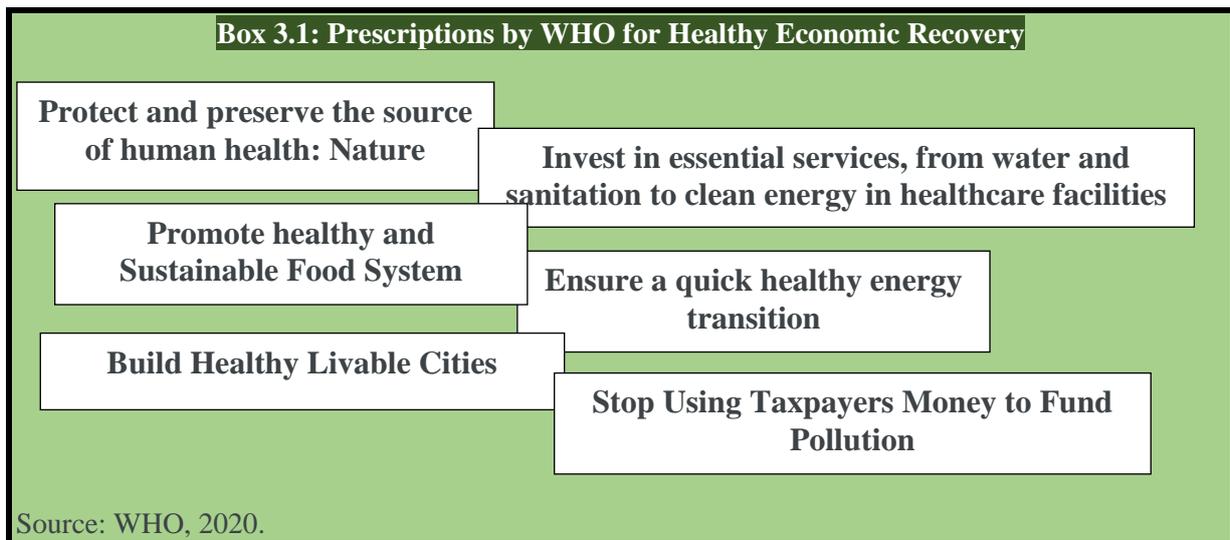
Considering the threat of attaining UN SDGs and 2030 Agenda, the UN Secretary-General Antonio Guterres reminds us that everything we do during and after this crisis must be with a strong focus on building more equal, inclusive and sustainable economies and societies that are more resilient in the face of pandemics and climate change. He states that ‘the recovery from the COVID-19 crisis must lead to a different economy.’ Reconciliation of public policy and green growth or pursuing economic development in an environmentally sustainable manner – is crucial for that recovery process (Green Finance Platform, 2020).

In a recent Statement, the UNEP Executive Director terms Covid-19 as the strongest warning¹⁷ of the planet to date that humanity must change and thus it is important to respond through supporting nations and partners to ‘build back better’ – through stronger science, policies that back a healthier planet and more green investments (UNEP, 2020a). The Covid-19 pandemic is a catastrophe that should help humanity realize and achieve by not overexploiting the natural world rather pandemic solutions are green solutions (Scientific American, 2020). In order to prevent future pandemics it is essential to recognize the links between human health, infectious diseases, destruction of our ecosystems and planetary health (World Future Council, 2020). Looking ahead, it is crucial that the humanity rebalance its relationship with nature to secure a sustainable future for people and the planet (WWF, 2020b). Future pandemics are likely to happen more frequently, spread more rapidly, have greater economic impact and kill more people if policymakers are not careful about the possible impacts of the choices they make today (IPBES, 2020).

¹⁷ ‘The more we are putting pressure on nature the more it is impacting’ and ‘healthy people and a healthy planet is part and parcel of the same continuum’, Inger Andersen, Executive Director, UNEP (<https://news.un.org/en>).

Segment-3: Opinions, Evidences and Prescriptions Strongly Favour Green and Sustainable Recovery Measures as Long Term Solution

In the aftermath of the global Covid-19 pandemic, governments are mobilizing significant funds to reinvigorate their economies; and various research activities based on surveys and evidences suggest that spending this money on climate-friendly green policy ventures could not only help environmental protection, but could also offer the best economic returns. WHO (2020) prescribes for a healthy, green recovery (box-3.1) and notes that overall plans for post-Covid-19 recovery, and specifically plans to reduce the risk of future epidemics, need to go further upstream than early detection and control of disease outbreaks. It is crucial to lessen impact on the environment, so as to reduce the risk at source. Investment in healthier environments for health protection, environmental regulation, and ensuring that health systems are climate resilient, and are essential guard against future disaster; and offers some of the best returns for society. Financial reform is needed to recover from Covid-19, and a good place to start is by removing fossil fuel subsidies¹⁸ (WHO, 2020).



Referring to the calls of health professionals¹⁹, Health Policy Watch (2020) suggested for recovery packages to prioritize investments in public health such as in clean air, clean water and low-carbon development, arguing that such investments would reduce air pollution and greenhouse gas emissions while building greater resilience to future pandemics and creating more sustainable jobs. They also warn governments to learn from the failures exposed by the pandemic to tackle vulnerabilities in the

¹⁸ Globally, about USD400 billion every year of taxpayers money is spent directly subsidizing the fossil fuels that are driving climate change and causing air pollution. Generally, social costs generated by health and other impacts from such pollution are generally not considered into the price of fuels and energy. Including the damage to health and the environment that they cause, brings the real value of the subsidy to over USD5 trillion per year- more than all governments around the world spend on healthcare. ‘We should stop paying the pollution bill, both through our pockets and our lungs’ (WHO, 2020).

¹⁹ More than 40 million health professionals from 90 countries worldwide have issued an open letter to G20 leaders and their chief medical advisors, urging them to support climate smart development in their plans for economic recovery from Covid-19. The appeal to the Group of 20 of the world’s most industrialized countries, supported by some 350 professional organizations, including the World Medication Association, says green growth is medically mandated – to save lives both from climate and air-pollution related threats which would also make societies more resilient to pandemics such as Covid-19 (Health Policy Watch, 2020).

economy and safeguard frontline healthcare workers, pointing out that when human health is compromised, the economy suffers. Several country or area specific surveys²⁰ and activities²¹ also came up with strong opinions in favour of green and sustainable recovery measures.

Reaffirming the UN's commitment to promote harmony with nature, the President of the UN General Assembly notes that humanity are not separate from the world around us.....'in this decade of action and delivery to implement the SDGs...we must work together to protect our planet and ecosystems, which affect every aspect of human life'.²² He proposed six ways to help the climate covering: climate related action to shape the recovery; delivering new jobs and businesses through a clean, green transition; rescuing business needs to be tied to achieving green jobs and sustainable growth; fiscal firepower must drive a shift from the grey to green economy; ending fossil fuel subsidies and polluters must pay for their contamination and public funds; shifting fiscal firepower from the grey to green economy (United Nation, 2020). Maintaining similar tone, the World Future Council (2020) suggested for immediate targeted actions required out of deep respect for life on earth by ensuring the right to health for all; and recommended that economic and financial stimulus and recovery packages should secure millions of decent jobs; should take care of sustainable, fair economies and disseminate green technologies such as renewable energy and agroecology; and must support meeting the Paris goal of limiting climate change to 1.5 degrees. United Nations' climate body suggested nations to green their recovery packages and shape the 21st century economy in ways that are clean, green, healthy, safe and more resilient.²³ Several studies²⁴ favored energy efficient measures alongside public health ventures as part of recovery packages.

Researchers and academicians are strongly coming forward in favour of green recovery initiatives in many instances. The 'COP26 Universities Network' has drawn on certain research and analyses to create a briefing for policymakers outlining a path to net-zero emissions economic recovery from Covid-19. The network, a growing group of more than 30 UK-based universities, including the University of Cambridge, has been formed to help climate change outcomes at the UN Climate Summit in Glasgow and beyond. They have put together a briefing document that identifies nine fiscal recovery policies that promise to bring both short-term high economic impact and long-term structural change to meet climate goals. They suggested for reshaping the national and global recovery from the coronavirus pandemic in a way that supports the response to climate change and

²⁰ In a survey conducted by Ipsos across 14 countries in April, 65% of respondents said it was important for their government to prioritize climate change mitigation actions in their post-Covid-19 recovery strategies. The figure was as high as 81% in India and 80% in China and Mexico, and fell as low as 57% in the US, Germany and Australia (Oxford Business Group, 2020).

²¹ An informal alliance has been launched in the European Parliament to propagate for green recovery from the Covid-19 pandemic. The 'green recovery alliance', has been launched in mid-April at the initiative of a French lawmaker (who chairs the European Parliament's committee on environment and public health) with 79 parliament members from across the political spectrum. The alliance also brings together civil society groups, including 37 CEOs, 28 business associations, the European trade union confederation, 7 NGOs and 6 think tanks with the appeal for the European Green Deal to be placed at the heart of the EU's post-pandemic recovery plan (Simon, 2020).

²² <https://news.un.org/en/story/2020/04/1062322>

²³ <https://www.business-standard.com/article/economy-policy>

²⁴ For example, a recent studies by Mishra (2020) suggested governments to align on three solutions as part of their financial budget to ensure a sustainable recovery from Covid-19 to mitigate long term economic and environmental costs: incentivize households to become more energy-efficient and balance power usage; develop citywide infrastructure to promote cycling and walking; collaborate and educate the public on energy reduction measures.

other environmental threats and emphasized on: renewable energy; reducing industrial emissions through carbon capture and storage; investment in broadband internet to increase coverage; and electric vehicles and nature-based solutions (Allan et. al, 2020).

Recently a joint assessment (forthcoming Oxford Review of Economic Policy) by the renowned economist Joseph Stiglitz and climate economist Nicholas Stern prescribes for green policy initiatives for recovering from the covid-19 crisis. Based on a survey²⁵ outcome and lessons of the 2008 crisis, they conclude that green projects/fiscal policy types²⁶ create more jobs, higher short term return per currency unit spend²⁷ and lead to long term cost savings, by comparison with traditional fiscal stimulus. In this context, the desired policy interventions of the study include, building efficiency retrofit spending; clean research and development spending; natural capital investment for ecosystem resilience and regeneration; and investment in education and training to address immediate unemployment from Covid-19 alongside unemployment from de-carbonization. For developing countries, rural support scheme spending, such as investment in sustainable agriculture, has been highly ranked (University of Oxford, 2020).

If stimulus packages simply return countries to where they were before Covid-19, the world will face the same problems of high pollution, climate crisis, and more serious health emergencies (Miller, 2020). ‘Some will claim that, in times of crisis, developing and emerging economies won't be able to afford the ‘luxury’ of green or sustainable investments, but this is a very short-sighted view’ (Oxford Business Group, 2020).

In this situation of uncertainty and skepticism, the optimistic group of people is with the opinion that the deadly virus would help draw lessons to move on with the development of human society respecting the ‘mother nature’; and in response to this, the globe would see major shift in policies and approaches to recognize and handle the critical problem of climate change.²⁸ On the reverse side, as part of the group of pessimist, the globe may start fresh race with new vigor to cover up the lost production due to the ongoing economic downturn.²⁹

²⁵ They catalogued 700 stimulus packages into 25 groups and survey 232 senior officials of 53 countries that include finance ministers and top officials of the central banks.

²⁶ Results of April 2020 survey of leading global economists, testing 25 fiscal policy types.

²⁷ When designing stimulus packages, governments often look to two key metrics. First, how long it takes for policies to have an economic impact, and second, the effect of the investments on longer-term national income, measured by the ‘economic multiplier’. Investments with a higher multiplier have greater economic impact per dollar spent (Calleghan and Hepburn, 2020).

²⁸ Several of the countries that were earliest and hardest hit by Covid-19, such as Italy and Spain, and those that were most successful in controlling the disease, such as South Korea and New Zealand, have put green development alongside health at the heart of their Covid-19 recovery strategies. A rapid global transition to clean energy would not only meet the Paris climate agreement goal of keeping warming below 2C, but would also improve air quality to such an extent that the resulting health gains would repay the cost of the investment twice over (WHO, 2020). Prior to the outbreak of Covid-19, China and Japan were ready to finance coal-powered energy projects in the region, but there are some indications that this is changing (oxford Business Group, 2020).

²⁹ The Dhauladhar mountain range of Himachal, visible from 200 km away in Punjab, India, after air pollution drops to its lowest level in 30 years while Covid-19 related lockdowns in places such as China, India and northern Italy vividly illustrated how ‘blue skies’ can return once pollution is curbed, healthcare professionals fear that as the immediate impacts of the virus fade, the world is resuming the same old polluting practices without having learnt lessons that are critical to a ‘climate recovery’ (Health Policy watch, 2020). While CO2 emissions fell sharply during the 2008 global financial crisis, they quickly resurged on a wave of carbon-intensive stimulus spending, as governments moved to restart their economies (Calleghan and Hepburn, 2020).

Moreover, a small section of optimistic group or policy makers may not bring much changes, collaborative efforts of all or major economies are needed at the global policy fronts. Optimum results of the green ventures and recovery measures would depend upon the collective efforts. Considering the devastating impact, governments and international entities need to act together now to ensure that economic recovery is aligned with climate and SDG commitments to protect, reboot and regenerate economies (Climate-KIC, 2020). The World Future Council (2020) calls on governments, multilateral organizations, leaders and policy-makers for a strong and efficient multilateral system, collective action and shared responsibilities in support of current and future generations; and thus in order to better manage pandemics and other global health and environment issues, the UN should enhance its internal coordination mechanisms, ensure effective cooperation between UN agencies, and improve systematic implementation.

Segment-4: Conflicting Signals in Global Economies Regarding Policy Approach for the Economic Recovery

In response to the wide spread virus contamination and economic implications, the policymakers of developed and developing countries have been providing unprecedented support to households, firms, and financial markets around the globe. Bangladesh is among the fast and quick responder that came up with economic stimulus packages to handle the scenario and support the economy.³⁰ All these global measures introduced by the policy makers may be categorized into: public health measures; human control measures; fiscal measures, and monetary measures (Ozili and Thnakom, 2020). Public health measures mainly include public quarantine, border restrictions, stay at home or social distancing directions that are accepted almost universally to address corona contamination risks to save life. As part of human control measures, governments in a number of countries introduced travel bans, shutdown or border restrictions, suspension of visa, shutdown of educational institutions, releasing overcrowded prisoners etc. To save economic distresses, government in different countries approved large stimulus packages to support industries; income for individuals and households; and social welfare payment. Measures that are undertaken as part of monetary intervention and financial stability measures mainly include: principal or interest moratorium to debtors; regulatory forbearance to banks; central banks' provisions to liquidity by purchasing of bonds or securities; lowering refinancing rates and statutory measures; and sustained flow of credit to micro and SMEs, essential businesses, and other affected sectors. In spite of differences, these packages have notable similarities in terms of the objectives, target groups and implementation modalities.

Developed countries have proposed or implemented sizeable rescue measures to support businesses and address immediate human welfare and healthcare concerns during lockdown periods. In April 2020, all G20 nations (including most EU member states), signed such fiscal measures into law, earmarking a total of over USD7.3 trillion in spending that include over 300 implemented policies of significant magnitude (University of Oxford, 2020). A study (by the University of Oxford) found that

³⁰ Government of Bangladesh initiated preventive measures actively from early February, 2020 i.e. even before identifying any conformed Covid-19 case. Responding quickly, the government of the country closed education institutions (from March 17), discontinued public and private offices from March 26 (other than offices engaged in offering essential services) and encouraged all non-essential businesses to shift their activities online. In remarkable ventures, the Honorable Prime Minister of the People's Republic of Bangladesh came up with economic stimulus packages initially in two declarations on March 25 and April 05, 2020; and by the time (May 15), a total number of 18 stimulus packages worth BDT 101117 (3.6% of the country's GDP) crore have been announced. Bangladesh Bank initiated several market intervention measures and refinancing schemes to complement the government's initiatives (Habib, 2020).

the vast majority of these policies are of the rescue typology, including significant worker and business compensation schemes which defend livelihoods of which 4 percent of policies are ‘green’, with potential to reduce long-run GHG emissions: 4 percent are ‘brown’ and likely to increase net GHG emissions beyond the base case; and 92 percent are ‘colourless’, meaning that they maintain the status quo.

Of the stimulus packages declared across the globe, there is evidence that some of the recovery responses have weakened environmental protection as measures to bring back economic growth (box-5.1). Covid-19 situation seems to pull back several global efforts. The year 2020 was supposed to be the most important year for global environment policy when no fewer than five major United Nations Laws³¹ were supposed to be agreed upon. By postponing these summits (much of the work had already been done in previous years), valuable political momentum may be lost as priorities shift in the wake of Covid-19.

Box 5.1: Certain Instances of Weakening Environmental Protection

- ▶ Fuel efficiency standards for new cars were significantly reduced in USA which could result in increased gasoline consumption by 80 billion tons, increasing carbon emissions in the atmosphere.
- ▶ US Environmental Protection Agency stopped enforcement of monitoring and reporting requirements of environmental protection for companies for an indefinite period, if the company can show a Covid-19 related reason for non-compliance.
- ▶ The Chinese Ministry of Ecology and Environment, announced that it would temporarily suspend environmental standards for small businesses in order to accelerate economic recovery.
- ▶ In Brazil, due to the coronavirus outbreak, fewer Government environmental enforcement officers are going into the Amazon and environmental monitoring efforts have been scaled back illegal logging, miners and wildfires increased.
- ▶ In other countries, such as Cambodia, India and Kenya, there has been an alarming spike in poaching due to fewer protection officers in the field.
- ▶ Several stimulus packages are supporting heavily polluting industries like oil and gas, aviation, cruise line etc.
- ▶ Environmental organizations and advocates, operating on a no-profit basis are receiving less donations and financial supports.
- ▶ Plastic pollution from PPE and medical supply chain increased with significant volume of PPEs and medical supplies are discarded in public areas, rivers.³²

Source: Compilation based on Degnaraine, 2020.

³¹ The postponed international negotiations include decisions on a major new treaty to regulate Ocean Biodiversity Beyond National Jurisdiction; the implementation of the Paris Agreement that was to be finalized in December at a major UNFCCC Climate Conference in Glasgow; the IUCN’s World Conservation Congress held every 4 years to assess global conservation efforts and scheduled for June in Marseilles; a summit to set the next 10 years’ biodiversity targets by the UN Convention on Biodiversity planned for the Chinese city of Kunming; and the UN SDG Conference on Oceans being held in Portugal in June (Degnaraine, 2020b).

³² ‘If just 1% of the masks were disposed of incorrectly and dispersed in nature, this would result in as many as 10 million masks per month polluting the environment’ (WWF, 2020a).

Regarding the policy responses, there are conflicting signals in global economies. For example, the French President announced an USD 8.8 billion bailout of the French car industry, prioritizing development of electric vehicles, for which car buyers will receive a 12,000 Euro subsidy each. The United Kingdom also said it would stress green growth in its recovery plans. And many European cities have created ‘pop-up’ bicycle lanes to ease crowding on public transport systems in the Covid-19 era – a move that has been celebrated by cycle activists. Cycling has become a more popular way to get around during the Covid-19 pandemic. On the other side, China is expanding its coal power capacity at home and in investments in South-East Asia and Africa. Australia is developing the world’s largest open pit coal mine to supply fuel to India. Japanese environmentalists are mounting a campaign against their country’s planned investment in a coal-fired power plant in Viet Nam. Turkey, Cyprus, Greece and Libya are bitterly vying for control of other Mediterranean gas reserves. And African countries such as the Democratic Republic of Congo aim to develop untapped shale oil sources, some in sensitive rainforest areas (Health Policy watch, 2020).

Bangladesh’s economic stimulus packages are to support essential health and critical economic purposes covering special allowance to the doctors, nurses, and health workers; health and life insurance support to incentivize the health workers; free food distribution for the poor; distribution of rice program for the low-income group; cash distribution program to the targeted group; expansion of monthly allowance program; housing support for homeless; expansion of rice procurement program; mechanization of agriculture; and agricultural subsidy program. In addition, working capital supports have been announced to help the affected industries, traders, enterprises, and individuals. Exporters; agriculture entrepreneurs; farmers; and cottage, micro, small and medium enterprises are expected to get immense support out of these recovery packages. Some of these stimulus supports and ventures are directly associated with the basic requirements of the SDGs. From the green perspective, the policy interventions and recovery measures of the country appear (subjective judgement) to be in the category of ‘colorless measures’³³ (not green or not brown) and are necessary for defending livelihood at this critical scenario. There are generic interruptions in economic activities and related implementation in this Covid-19 scenario, however, there is no evidence of weakening or reversing of policy and strategy on the country’s earlier commitments and activities³⁴ associated with environmental protection.

Generally, policy makers of all global economies are now working to come back to the normal- ‘the new normal’³⁵ or reverting back. However, how will policymakers judge that they are back? What are the indicators to indicate that an economy has come back to the normal? ‘Assessment and recovery parameters’ seem to be a critical determinant on the policy makers’ recovery approach. Policy makers around the globe are responding to the Covid-19 crisis, and generally their recovery and economic stimulus models are highly influenced by the intergovernmental organizations like the World Bank, IMF, ADB etc. that commonly use GDP as the yardstick to ‘return to normal.’ Over reliance on

³³ Following the categorization of the recovery policy interventions by the University of Oxford (2020).

³⁴ Bangladesh made progress towards environmental sustainability by integrating the principles of sustainable development into country’s policies and programs to reverse the loss of environmental resources. Its progresses on a number of indicators have surpassed its neighboring developing nations in South Asia. In 2015, the honorable Prime Minister of the People’s Republic of Bangladesh Sheikh Hasina has been announced as one of the winners of the United Nations highest environmental accolade, in recognition of Bangladesh’s far-reaching initiatives to address environmental issues. In the area of green financing, Bangladesh Bank is the pioneer in several fronts (Habib, 2019).

³⁵ New Normal is a term in business and economics that refers to financial conditions following the financial crisis of 2007-2008, the aftermath of the 2008-2012 global recession, and the Covid-19 pandemic.

this type of gross measure might push policymakers towards wrong direction.³⁶ Already there are worrying warning signs that several Governments have been lowering environmental standards and bailing out unsustainable polluting industries, as a way to accelerate their way out of the coronavirus crisis. This is a false trade off and it indicates how the modern economy has undermined natural ecosystems (Degnaraine, 2020). Because of over reliance of GDP, story of economic recovery might be scripted keeping aside the environmental fall as happened earlier.³⁷

Segment-5: Green and Sustainability Screening and Check List for Planning and Undertaking Covid-19 Recovery Measures

At the outset, world leaders must acknowledge the close connections between people, nature, and climate and undertake recovery action to reduce the systemic risk.³⁸ Governments are expected to consider several factors in putting together their stimulus packages covering immediate needs, institutional capacity, market conditions, legacy of earlier infrastructure investment decisions, and societal and political concerns.³⁹ However, global cooperation and adequate incentive for nature positive activities are crucial. Most immediately it is at the core to ensure that the actions being taken to reduce the impacts of the Covid-19 pandemic are not themselves amplifying the risks of future outbreaks and crises by following three considerations as umbrella framework (box 5.1). These are associated with handling pandemic risks and related incentives; one-health approach through global cooperation; and recovery incentive for sustainable and nature positive activities (IPBES, 2020).

Box 5.1: Umbrella Considerations for Recovery and Economic Stimulation Plan		
Adequate fund and resource for protection and incentivizing behavioral change on the frontlines of pandemic risk	‘One Health’ from the global to the most local – recognizing the complex interconnections among people, animals, plants and the shared environment	Deploy stimulus packages that offer incentives for more sustainable and nature-positive activities

Note: Based on IPBES, 2020.

³⁶ In spite of the importance of the gross measure GDP on overall economic progress, the short coming of the measure is rightly reflected in the words of Robert Kennedy at a Presidential Campaign Rally in 1968 “GDP counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage... It counts jails, napalm, nuclear warheads, and the loss of natural wonder in chaotic sprawl... Yet, it does not pay attention to the health of our children, the quality of their education or the joy of their play... It measures everything in short-except that which makes life worthwhile.” (<https://performancemarks.com/2012/07/>).

³⁷ The 2010 BP Deepwater Horizon oil spill actually ended up being recognized as leading to higher economic output due to the huge cleanup activity (4,000 unemployed people were hired for the cleanup efforts), rather than the loss of wildlife in the region (<https://blogs.wsj.com/economics/2010/06/15/oil-spill-may-end-up-lifting-gdp-slightly/>).

³⁸ World leaders must step up and acknowledge the close connections between people, nature, and climate, and take action to reduce nature-related risks (UNEP, 2020a); and the globe has much more to gain from working with nature than against it (UNEP, 2020c)

³⁹ Any recovery package, including climate-friendly recovery, is unlikely to be implemented unless it also addresses existing societal and political concerns – such as poverty alleviation, inequality, and social inclusion – which vary from country to country (University of Oxford, 2020).

A goal oriented checklist (box-5.2), board green areas to be considered (box 5.3), and a list of highly ranked project activities (box 5.4) may be helpful as indicative guides for policymakers to decide on the allocation of stimulus proposals covering immediate and short-term needs related to the livelihood and the longer-term needs to deliver sustainable growth and prosperity (World Bank Group, 2020; Iberdrola, 2020; and Hammer and Hallegatte, 2020). Evidences show that recovery policies can deliver both economic and climate goals where co-benefits and policy designs are critical (University of Oxford, 2020). Ultimately, a balanced approach would take the globe to the solution covering economic, environmental and social dimensions (box-5.5)- a necessary combination to achieve balanced and inclusive green growth (Green Finance Platform, 2020).

Box 5.2: Goal Based Sustainability Checklist for Green and Sustainable Recovery Strategy	
Check Point-1	▶ Handle Contamination Risk
Check Point-2	▶ Boost Economic Activities
Check Point-3	▶ Long Term Growth Potentials
Check Point-4	▶ Create Jobs for Generating Income
Check Point-5	▶ Positive Impact on Technology
Check Point-6	▶ Promote Public Health and Social Capital
Check Point-7	▶ Resilient to Future Shock
Check Point-8	▶ Respect Environment and Nature
Note: Author's preparation based on World Bank Group, 2020; Hammer and Hallegatte, 2020.	

Box 5.3: Key Areas of Green Investment to Consider for Green and Sustainable Recovery Strategy	
Green Industry	▶ Steps to support industrial units to modernize their processes for zero or low emissions. Use of recycled materials should be increased in industrial units.
Green Construction	▶ Steps for Sustainable urban development with the construction of energy efficient buildings.
Clean Energy⁴⁰	▶ Prioritizing the use of clean, renewable energy by modernizing infrastructure and promoting energy efficiency.
Green Transport	▶ Reducing emissions from cars, trains, shipping and air transport and thus promoting environmentally efficient public and private transport.
Conserving Bio-diversity	▶ Measures to protect biodiversity and ecosystems, to improve the quality of the oceans and forests; and to develop the concept of a green city for improving biodiversity in urban spaces.
Green Agriculture	▶ Reducing the use of pesticides and develop innovative techniques, in agricultural processes, to ensure sustainable and quality feeding, and to increase organic farming.
Reducing Pollution	▶ Measures to clean air and water for improving the quality of life of the citizens.
Green Financing	▶ Measures to take care of environmental risks at the time of injecting liquidity through banks
Note: Author's preparation based on Iberdrola, 2020; and Hammer and Hallegatte, 2020.	

Box 5.4: Green Projects Highly Ranked for Green and Sustainable Recovery

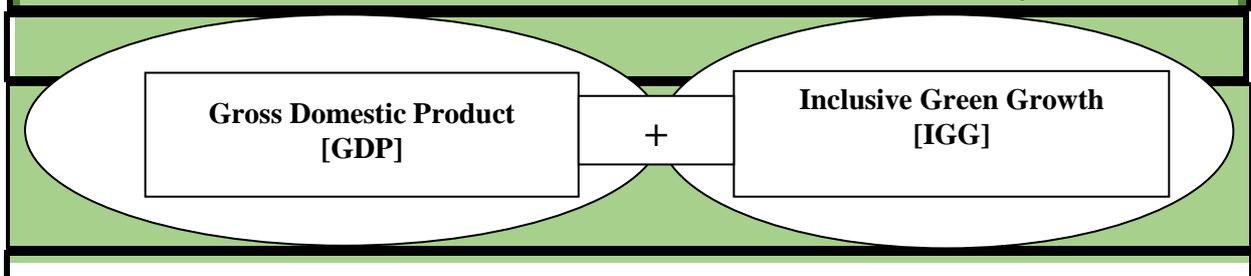
- ▶ Clean physical infrastructure investment in the form of renewable energy assets, grid modernization and storage (CCS) technology;
- ▶ Building efficiency spending for renovations and retrofits including improved insulation, heating and domestic energy storage systems
- ▶ Investment in education and training to address immediate unemployment from Covid-19 and structural shifts from de-carbonization;
- ▶ Natural capital investment for ecosystem resilience and regeneration including restoration of carbon-rich habitats and climate-friendly agriculture;
- ▶ Clean Research and Development spending; and
- ▶ Rural support scheme spending, such as on sustainable agriculture (for developing countries)

Source: University of Oxford, 2020.

Box: 5.5: Recovery Strategy to Balance with Key Dimensions



Box: 5.6: Indicators for Green and Resilient Economic Recovery



For resilient outcome, stimulus packages and measures should be screened based on economic, environmental and social dimensions. At this critical stage the bottom line is ‘countries must avoid any effort towards halting ongoing environmental commitments and related green budgeting’.⁴¹ Moreover, alongside relying on the conventional economic progress indicator like GDP, it is also important to use Inclusive Green Growth (IGG)⁴² indicator that requires approaches and metrics beyond GDP (box-5.6). IGG attempts to provide a solution to the joint objectives of economic growth, environmental sustainability and social inclusiveness.

⁴⁰ Accelerating investment in renewable energy could generate huge economic benefits while helping to tackle the global climate emergency; green energy investments could see returns of up to USD8 on every dollar spent, according to the International Renewable Energy Agency (<https://www.theguardian.com/> April 20).

⁴¹ Stimulus measures should be screened on their climate effect- both positive and negative, and environmental standards must not be relaxed (IMF Fiscal Affairs, 2020).

⁴² While a particular country’s IGG priorities and related measures are context dependent, a number of measurement themes and indicator options have been identified to address this heterogeneity (GGKP, 2016).

Segment-6: Generic Recommendations and Concluding Remarks

Covid-19 has been extracting huge price and giving another opportunity to the policy makers to rectify world's policy and strategic approach for future economic growth and development. It is time to realize the root cause of the pandemic, draw lessons, and emphasize on longer-term outlook to save the future generation from a nonreversible misery in near future. It is about refreshing policy approach and recovery drives for green economy targeting renewed and sustained growth. There is no doubt that the affordability of the expected recovery interventions and fund allocations will vary across countries, especially governments' balance sheet and existing fiscal condition may put limit on certain fronts but should not restrict policy makers on certain basics at part of attaining their long term goals on green and sustainable growth.

In the context of Covid-19 scenario, it is strongly desirable to get reflection of the changed policy approaches of the economies of the world in all of their forthcoming fiscal stimulus interventions and budget allocations. This is also expected from the upcoming National Budget of Bangladesh, which is to be declared soon in a situation of economic distress and uncertainty. Alongside allocating due impetus on emergency health services and livelihood concerns of the vulnerable sections, 'rural and agriculture support schemes' should be given utmost priority- the highly ranked recovery interventions for the sustainable growth in the developing countries⁴³. Highly graded key green investment areas like renewable and clean energy, green infrastructure, eco-system resilience projects, climate friendly agriculture, education,⁴⁴ training and green R & D should also receive due attention in the upcoming national budget. Initiatives would be required to ensure safe disposal of biomedical and other wastes generated during treatment and diagnosis of Covid-19 patients, and lockdown period.

'Green and sustainability screening' of any recovery policy intervention or fiscal allocation is the need of the hour. As relevant to other economies of the globe, Bangladesh needs to target not only the conventional economic progress indicator like GDP, but also aim at Inclusive Green Growth (IGG) indicators or a composite goal matrix incorporating targets of economic growth, environmental sustainability and social inclusiveness.

Finally, the big decision to choose from: either to go on fighting pandemic as long as the humanity survives, or save the future generation by respecting the natural and environmental orders. For the healthy living and resilient livelihood, it seems quite reasonable to restrain overexploitation, pollution, and invasive behavior against the nature and to allow the ecosystem to maintain its delicate balance.

⁴³ Assessed by an Oxford University Research Group in April 2020 (box-5.4).

⁴⁴ For ensuring optimum outcome of the green policy interventions, the country needs comprehensive medium term plan for green education, training and awareness development.

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