

**POST PANDEMIC PROSPECTIVE IN INDIA  
IN ENVIRONMENTAL ECONOMICS**

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**Abstract**

*The outbreak of the Covid-19 pandemic is an unprecedented shock to the Indian economy. The Government of India has announced a variety of measures to tackle the situation, from food security and extra funds for healthcare, to sector related incentives and tax deadline extensions. With the prolonged country-wide lockdown, global economic downturn and associated disruption of demand and supply chains, the economy is likely to face a protracted period of slowdown. This article first identifies some necessary elements and notions critical in shaping the post-pandemic development paradigm.*

**Key Words:** Indian Economy, Corona Pandemic, Green Recovery, Inclusive Green Economy, Sustainable Development Goals.

**1 .Introduction:**

The COVID-19 pandemic is seen as the biggest health crisis and disruption since the Spanish flu, with profound impacts on every aspect of human life. Given the uncertainty around how deep this crisis is, these are still early stages to foresee the complete social, economic and geopolitical fallouts of the disruptions caused by the pandemic. Our Prime Minister announced a special economic package for 'AtmaNirbhar Bharat' or a 'self-reliant' India which would better integrate India with the world. The package is to the tune of INR 20 lakh crores, which is about 10 per cent of India's gross domestic product. The package has five pillars: (1) Economy; (2) infrastructure; (3) system; (4) vibrant demography; and (5) demand. India also announced a USD 2 billion

health sector spending programme to expand infrastructure and COVID 19 testing capacity.

**Table 1: Details of economic package by the Indian government in response to COVID-19**

Package	Announcement Date	Quantum
Tranche 1: Business including MSMEs	13 May 2020	<ul style="list-style-type: none"> <li>• INR 3 lakh crore collateral free automatic loans for business including MSMEs</li> <li>• INR 20,000 crore subordinate debt for MSMEs</li> <li>• INR 50,000 crore equity infusion through MSME Funds of Funds</li> <li>• INR 30,000 crore liquidity facility for NBFCs/FCs/MFIs</li> <li>• INR 45,000 crore partial credit guarantee schemes for NBFCs</li> <li>• INR 90,000 crore liquidity injection for Discoms</li> </ul>
Tranche 2: Poor including migrants and farmers	14 May 2020	<ul style="list-style-type: none"> <li>• 3 crore farmers with agricultural loans of INR 4.22 lakh crore availed the benefit of 3 months loan moratorium</li> <li>• Interest subvention and prompt repayment incentive on crop loans, due from 1 March extended up to 31 May 2020</li> <li>• 25 lakh new Kisan Credit Cards sanctioned with a loan limit of INR 25,000 crore</li> <li>• Liquidity support provided to farmers post COVID</li> <li>• State governments to utilise (SDRF) for setting up shelter for migrants and providing them food and water etc.</li> <li>• More support will be provided to migrants who are returning home</li> </ul>
Tranche 3: Agriculture (May 15, 2020)	15 May 2020	<ul style="list-style-type: none"> <li>• INR 30,000 crore additional emergency working capital for farmers through NABARD</li> <li>• INR 2 lakh crore credit boost to 2.5 crore farmers under Kisan Credit Card Scheme</li> <li>• MSP purchases of amount more than INR 74,300 crore made during lockdown period</li> <li>• Additional support has been provided for animal husbandry and fishery units</li> <li>• INR 1 lakh crore Agri-Infrastructure Fund for farm-gate infrastructure for farmers to be created</li> <li>• INR 10,000 crore scheme for formalisation of MFE has been announced</li> <li>• INR 20,000 crore for fishermen through PMMSY</li> <li>• An animal husbandry infrastructure development fund of INR 15,000 crore will be set up</li> <li>• NMPB will green 800 hectares area by developing a corridor of medicinal plants along the banks of Ganga</li> </ul>
Tranche 4: New horizons of growth	16 May 2020	<ul style="list-style-type: none"> <li>• Introduction of commercial mining in the coal sector through revenue sharing mechanism instead of a regime of fixed royalty/tonne system, liberalisation of entry norms, exploration cum production regime for partially explored blocks, production earlier than scheduled will be incentivized through rebate in revenue share</li> <li>• Infrastructure development of INR 50,000 crore</li> </ul>
Tranche 5: Reforms	17 May 2020	<ul style="list-style-type: none"> <li>• 15,000 crore announced for protection of healthcare workers</li> </ul>

MSME: Micro, small, medium enterprises, NBFCs/FCs/MFIs: non-bank financial companies, finance companies, micro finance institutes, Discom: Distribution companies; SDRF: State Disaster Response Fund; NABARD: National Bank for Agriculture and Rural Development; MSP: Minimum support price; MFE: Micro Food Enterprises; PMMSY: Pradhan Mantri Matsya Sampada Yojana; NMPB: National Medicinal Plants Board

Source: Compilation by Authors from Ministry of Finance Announcements

## 2. Economic Recovery Responses to the COVID-19 Situation

### India Responses

- India's Prime Minister has announced an economic package of INR 20 lakh crores.
- Major rate cuts by RBI such as policy lending rates, cash reserve ratio (CRR) and liquidity coverage ratio for providing cheaper cash to banks have been instigated.
- Loan freeze for a period of three months on term loans has been permitted.
- Provision of special windows for corporate borrowers and rural industries.
- To infuse more money in the monetary systems, the RBI has been injecting additional liquidity in the banking system to keep down bond yields.

- To attract foreign investors, India has opened up a wide swath of its sovereign bond market to overseas investors and to secure access to global indexes.
- To ease the fiscal deficit of state governments, state administrations have been permitted to borrow more for the present year.
- To stabilize the capital market, all capital and debt market services have been exempted from the lockdown.

### 3. Elements for Greening Economic Recovery while Dealing with COVID-19 in India

The past couple of months have been a time of great learning, and in many ways, they are pointers to the inevitable transformational shifts – both permanent and temporary – towards some of which India may have already set sail, and many more will follow. For instance, now we know to differentiate between necessary and avoidable work related travel; we have tested that the work from home model works well for many sectors without compromising on the productivity; we have felt the need for newer models for delivery of many health and education related, and other services. We now know the importance of technology (Arogya Setu App) in nationwide quick communication and surveillance. There is a long list of new technology, governance and other initiatives with human connect which sprung up at tremendous speed.

In guiding the process experience of the past few months, in India and other parts of the world, it will be immensely useful in addressing the following broad based questions:

□ **Fundamental shifts to encourage values:** What fundamental shifts are needed in terms of reforms in market, fiscal and monetary policies to support, encourage, catalyse and reward the transitions (including through notions of compassion and empathy for humans and nature, co-existence, and self-reliance)?

□ **Prioritizing measures:** How will the government prioritize measures? What should be the parameters against which government actions can be assessed? How can manufacturing systems be built that have an ability to quickly adapt to similar disruptions?

- **Enabling participatory decision-making across all governance levels:** What policy frameworks and participatory decision-making models are required to promote risk reduction to pandemics and aid risk reduction, self-reliance at the constitutionally recognized levels/ units of governance? A top down approach will not be prudent and will hurt the Indian growth story more than it will help since actions have to align across all the three tiers of governance. The present pandemic has brought out the need for stronger institutions at the third tier of governance so that essential services are not disrupted. It is also essential to address concerns and ideas coming from the grassroots, from those most impacted by the COVID-19 pandemic situation. What policies are needed to encourage the value addition at the local level as an incentive for resource efficiency, conservation and equitable sharing?
- **New research agendas and systems:** What is needed to renew focus on inter-disciplinary research on environment and pandemics? What policy support is required to enable such an inter-disciplinary research agenda involving all disciplines such as sciences, applied sciences, social sciences, arts and communication?
- **Models of communication:** What would be required models of communication and monitoring that aim at providing a healthy environment, social security and safety to all irrespective of their locations in these extraordinary times?
- **Natural resources and sustainable consumption and production:** What regulatory and fiscal and monetary policy changes are required to protect the environment in terms of conservation as well as sustainable consumption and production?

#### 4. GREENING OF RECOVERY MEASURES:

##### Finance:

According to IMF recommendations on monetary policy in response to COVID-19, central governments need to provide ample liquidity to banks and non-bank finance companies (particularly to those lending to small- and medium-sized enterprises, which may be less prepared to withstand a sharp disruption) at this stage. RBI already has priority sector lending norms which target environment sectors. These should be pushed by government through stimulus. State governments and local bodies should be allowed

to borrow more, either from RBI or from commercial banks and other primary dealers, as they are operating under stricter fiscal constraints. RBI needs to enable loans to the government at a discounted interest rate, for the time being, for the required extra expenditure.

#### **Health:**

The COVID-19 pandemic has created a mounting pressure on the existing healthcare infrastructure of the country; this is expected to continue through 2020 and 2021. In response to this, proactive strategies need to be made and investments to be done to alleviate future pressures on health systems and ensure that services remain high quality, accessible and sustainable. At 3.5 per cent of GDP in 2017 and 1.18 per cent in 2016 (MOHFW 2019), India's overall health spending is among the lowest compared with peer and advanced economies; healthcare needs more robust investment and spending to deal with the current pandemic. Though COVID-19 testing and treatment have been included in the existing Ayushman Bharat scheme which aims to provide free health coverage to the bottom 40 per cent poor and vulnerable population, about 65 per cent of all healthcare expenditure is borne privately by households (OECD 2019). Therefore, not just relief strategy is needed for this sector but also ensure sustainability of healthcare services, first by mitigating the expected increase in demand on the existing system and second, by identifying the ways to minimise the impact of expected decreases in the supply of financial and non-financial resources available to healthcare systems and the disrupted supply chains to ensure green procurement. Research is also needed for the safer and environmentally friendly disposal of healthcare and self-care kits like masks, PPE and gloves.

#### **Education:**

Sufficient infrastructure in terms of both hardware and software is required especially in rural areas or else this could increase inequality though the 'digital divide' (Kundu 2020).

#### **Agriculture**

Due to complex, inter-connected and often global supply chains, restrictions on movement, economic activities and trade because of the containment measures that many countries are adopting due to COVID-19 have already caused major disruptions in food systems. Targeted supports to farmers have been provided to help tide over the COVID-19 crisis. The EU Executive has adopted a temporary framework for state aid increasing public support to agriculture, with farmers now benefiting from up to 100,000 euros per farm. Canada is increasing Farm Credit Canada by USD 5 billion. Under the PM-KISAN scheme, income support is provided to all small and marginal farmer families across the country, in three equal instalments, to help them purchase inputs for their agricultural crops.






#### **Power:**

There has been a collapse in the demand for electricity during the COVID-19 pandemic, which has led to an increased share of renewable generation penetration due to the 'flexibilisation of coal', whereby coal-based thermal power plants supply power only to fill the gaps left by solar and wind energy units. There will also be an opportunity for clean energy transition as part of coping strategies and support measures. Furthermore, the crash in world oil prices and continuation with an aggressive taxation regime on fossil fuels can free up revenues to help tackle the crisis and also for promoting greener technologies for which incentives can be provided. Subsidies provided for green energy in FY19 were INR 11,604 crores compared to the subsidies for oil, gas and coal, which amounted to INR 83,134 crores (IISD 2020). Renewable energy can be incentivised on a large scale (Shrivastava and Shrivastava 2020)

#### **5. Ways Forward: Towards a Framework for Greening of Recovery Package**

This paper is based on the analysis of 162 measures announced during the 2008 financial crisis, analysis of economic packages as a response to COVID-19. Further consultation and validation was undertaken by through a questionnaire exercise and through a webinar organized by TERI and GGGI. The analysis clearly makes a case for fiscal stimulus measures as a response to COVID-19. The findings are summarised in table 2.

**Table 2 : Green recovery measures according to time-frame and economic package pillars**

	Short term	Medium term	Long term
<b>Demand</b> 	<ul style="list-style-type: none"> <li>Promotion of livelihoods and natural resource based economic activities that generate environmental gains</li> </ul>	<ul style="list-style-type: none"> <li>Introduce vehicle scrappage programs within stimulus packages to phase out old cars</li> <li>Increase awareness related to environmental goods and services</li> </ul>	<ul style="list-style-type: none"> <li>Building resilience for the most vulnerable section of the population with respect to greater access to formal credit and social safety nets such as insurance and pension schemes.</li> </ul>
<b>Demography</b> 	<ul style="list-style-type: none"> <li>Create opportunities for green skills in both rural and urban areas</li> <li>Re-skilling and retraining of workforce</li> </ul>	<ul style="list-style-type: none"> <li>Enhance IT related infrastructure for education especially in rural areas</li> <li>Enhance global citizenship and education for sustainable development</li> <li>New jobs in green industries like renewables and recycling of resources/material and e-commerce sectors</li> </ul>	<ul style="list-style-type: none"> <li>Address infrastructural bottlenecks and supply-side constraints such as restrictive factor markets and labour market rigidities in employment generation</li> </ul>
<b>Economy</b> 	<ul style="list-style-type: none"> <li>Continue aggressive taxing and direct revenues by taxing fossil fuels and luxury goods towards environmental sustainability activities</li> <li>Push more investment in environment priority sectors through banking sector policies related to COVID-19 recovery</li> </ul>	<ul style="list-style-type: none"> <li>Improve market competitiveness of environmental goods and services</li> <li>Become an investment destination by pushing norms related to responsible business conduct and ESG parameters</li> <li>Biofuels development</li> </ul>	<ul style="list-style-type: none"> <li>Sectoral regulation</li> <li>Enhancement of international commitments (SDGs, NDCs)</li> <li>Encouraging change in behaviour, eg. encouraging conservation of energy</li> </ul>
<b>Infrastructure</b> 	<ul style="list-style-type: none"> <li>Strengthening local bodies and municipal corporations dealing with additional biomedical waste and municipal solid waste</li> <li>Concessional and incentive-based credit for environment</li> <li>Conditional incentives for green technology and infrastructure upgrading</li> </ul>	<ul style="list-style-type: none"> <li>Enhance infrastructure investment for safe public transport and work from home options</li> <li>Promotion of water use efficiency in agriculture and industry</li> <li>Disposal and use of agricultural residues</li> <li>Resource efficiency</li> <li>Management of urban and industrial waste</li> <li>Increase infrastructural spending on health and social care projects, as well as digital infrastructure to build greater capacity and resilience</li> </ul>	<ul style="list-style-type: none"> <li>Promoting Circularity across supply chains</li> <li>Incentives to state and local governments for energy and transport transition</li> <li>Boosting PPP in infrastructural development</li> <li>Changing attitude towards infrastructural risks</li> </ul>
<b>System</b> 	<ul style="list-style-type: none"> <li>Reform existing decision-making processes including state budgeting and national budgeting can be transformed into SDGs-linked mapping exercises</li> <li>Strengthen adoption and systems of certifications such as ZED (zero effect, zero defect), Eco-mark and other labels and standards</li> <li>Increase sustainable public procurement</li> </ul>	<ul style="list-style-type: none"> <li>Technology upgradation in renewables and industry 4.0</li> <li>Outcome based fund for technology and infrastructure upgradation in MSMEs</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening health systems</li> </ul>

Source: Compiled by the study team

## 6. Conclusion:

In India, this has not yet started in a systematic manner and needs to be prioritised alongside steps to deal with the health crisis. By rationalizing tax rates or providing tax relief curb the impact of COVID-19 on the Indian economy might know after implementation of measures. About necessary measures to combat the economic impact from the rapidly spreading coronavirus, the Government policymakers would need to implement a substantial targeted fiscal, broader monetary stimulus, and policy rate cuts to help normalize the economic situation. As the COVID-19 crisis continues to expand, manufacturers will likely face challenges on numerous fronts. Manufacturers will also need to look beyond their own economic viability.

While some transitional shifts will emerge organically and will need support and participation from the central and state governments to flourish; the transformational shifts will require a purposive and policy nudge from the government

Yet these give us sufficient basis to believe that deep structural and policy changes are be on the anvil to watch out for in terms of how policymakers bring about policy reforms to nudge the country towards green, resilient, just, and sustainable development.

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