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The Energy and Resources Institute and Global Green Growth Institute

EVENT PROCEEDINGS

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Greening Post COVID-19 Economic Recovery in India

The COVID-19 crisis has shown that growth must be both inclusive and sustainable in the long term. Recently, the Prime Minister announced a special economic package of INR 20 lakh crores for 'Atma Nirbhar Bharat' or a 'self-reliant India' which would better integrate India with the world. The package provides an opportunity to take much awaited steps to green the economy in sectors that have the maximum impact on sustainable development. Both sustenance and sustainability have to be the cornerstones of economic recovery as India responds to this crisis. In this background, The Energy and Resources Institute (TERI) along with the Global Green Growth Institute (GGGI) organised a webinar on greening of economic recovery in India on 14 May 2020. The discussions brought in perspectives ranging from direct support interventions, restructuring existing programmes and schemes, to skill and knowledge management for economies to remain green, and addressing demand and demographic issues. The webinar and the proceedings prepared thereafter aim to serve the constructivist function of facilitating discussion on the topic of greening post COVID-19 economic recovery.





Greening Post COVID-19 Economic Recovery in India

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SUMMARY

The COVID-19 crisis has shown that growth must be both inclusive and sustainable in the long term. Recently, the Prime Minister announced a special economic package of INR 20 lakh crores for 'Atma Nirbhar Bharat' or a 'self-reliant India' which would better integrate India with the world. The package provides an opportunity to take much awaited steps to green the economy in sectors that have the maximum impact on sustainable development. Both sustenance and sustainability have to be the cornerstones of economic recovery as India responds to this crisis.

In this background, The Energy and Resources Institute (TERI) along with the Global Green Growth Institute (GGGI) organised a webinar 'Towards SDGs-linked Greening Economic Recovery in India', on 14 May 2020, where SDGs stands for sustainable development goals. The discussions brought in perspectives ranging from direct support interventions, restructuring existing programmes and schemes, to skills and knowledge management for economies to remain green and addressing demand and demographic issues. Such programmes include MGNREGS (Mahatma Gandhi National Rural Employment Guarantee Scheme) and programmes related to MSMEs (micro, small and medium enterprises). Merely doling out money without any fundamental reforms will not work; there is a need to dive deep into thematic aspects such as sectoral interventions, financing, technology collaborations and regulatory/policy alignments that support a green recovery.

Speakers at the webinar highlighted that this crisis should also be leveraged to make more fundamental changes in processes of decision-making at the policy level such as better inter-agency coordination by factoring in sustainable development goals in state and national budgeting. Responses from various stakeholders in a questionnaire exercise by TERI and GGGI revealed that responsible industries in both large industry and MSME sectors need stronger recognition. Participants felt that most of the policy announcements so far focused on relief and short-term measures and not so much on medium- and long-term recovery measures. The webinar and the proceedings prepared thereafter aim to serve the constructivist function of facilitating discussion on the topic of greening post COVID-19 economic recovery.

KEY POINTS

Fundamental tenets

Learning from the lessons of the Great Depression, multiple recovery packages can be expected. Green stimulus packages should be thought of as interventions for the long term. Stimulus measures should look at fundamental changes and not merely rely on market forces.

In these pandemic times, the world has witnessed cleaner environment but with huge costs to the economy so the question pertains to what can be an acceptable economic cost. There should be public pressure for changing technology paths such as fuel use in industry and transportation along with sustainable agricultural practices. For economic measures to be inclusive, resilient and green, it is essential to go beyond liquidity issues and delve into the domain of environmental reforms.

Health needs to be looked at more holistically in terms of both human and environmental health; the concept of ecosystem services can aid in the same.

Government ambition to greening industry and the economy is vital in this regard as governments can nudge industries in the right direction by sending appropriate market signals. Energy transitions picked up speed only because the government raised green ambition and pushed the market in that direction; since then, operating costs and prices of renewable energy have fallen substantially.

Economic recovery path should consider investing in interventions that can ‘reduce risks’ from pandemics in the future rather than just aiming at creating higher growth.

Self-reliance has to be nuanced and should not imply nationalization which can be more damaging for the environment as local may not always be good for the environment. Self-reliance should also imply dealing with climate change and not merely relying on international cooperation.

Aligning decision-making processes to sustainable development goals

SDG-aligned budgeting or green budgeting should be used as a framework for better alignment of government spending with environmental objectives and sustainable development goals. This will be a good starting point in eventually moving towards integration of environmental concerns and concepts into development planning and budgeting.

A framework is needed to examine green recovery in terms of assessing current actions of the government as well as to suggest actions in the medium- and long-term period.

Inclusive and participatory processes

Policies should not only be innovative but must emanate from the needs of the common people and the informal sector who are usually not well represented in government decision-making processes. Global institutions should contribute to transforming these processes through which solutions are being looked at. There is a need to proactively create pathways for listening to the ideas of the common people

The central tenet in green recovery transformation is to proactively foster innovation in project and policy formulations by linking the informal sector with the formal sector. Innovative solutions need to be converted into actionable propositions and the role of civil society becomes important for ensuring social justice and building capacities at the local level.

Industry, finance and market measures

A knowledge pool is required to stimulate investor and consumer behaviour. The present pool of knowledge is extremely disaggregated and fragmented. Hence, there is a need to consolidate and disseminate all necessary information on existing investments and recalibrate them in addition to incremental investments.

The private sector including the business sector should take the lead in putting adequate pressure on governments for greening economies. Industry needs to rescale and recalibrate approaches and come out with more resilient business models. There is a need to raise awareness across relevant stakeholders and provide an interface for deliberations. Transitions to green economy will require cutting edge technology and sustainable finance in the form of long-term capital availability.

In terms of greening the Goods and Service Tax (GST) based on the concepts of environment friendly goods and services and other goods, we need to review the rates as well and cancel input credit for certain goods and services.

Measures related to public procurement should be seen as an opportunity for pushing for sustainable public procurement in India and nudging market players in the right direction.

Greening MSMEs

Since the notion of 'self-reliance' and 'self-sufficiency' can lead to increased domestic manufacturing in India including in the MSME sector, there perhaps can be daughter funds in existing funds wherein the daughter funds can focus on green activities.

An action plan is required to implement the *Atma Nirbhar* or self-reliance policy announced by the government so as to facilitate MSMEs that produce environmental goods and services such as Ayurvedic products and healthcare.

The banking sector needs to nudge MSMEs towards resource efficiency and circularity concessional and incentive-based credit.

Livelihoods and environment

There is a need for capacity building to reap the benefits of existing government schemes such as MGNREGS, which can contribute to employment as well as to environmental sustainability.

Emphasis on self-reliance approaches to be adopted by the Indian government should result in the creation of durable assets through natural resource management and through agriculture and allied activities.

Sustainable jobs in the energy sector need to be recognized as these jobs will stay in the markets and have the potential to lead to a green recovery. Economic packages should lead to sustainable livelihood outcomes; these outcomes need to enhance natural capital.

Economic packages can cater to rural workforces who can become skilled personnel in the renewable energy sector through the *Suryamitra* programme. Skill India training centres, which currently mostly cater to urban areas, can be expanded to rural areas along with stronger market and industry linkages in terms of the training and course content.

The present farm labour situation in states like Punjab can be turned into an opportunity for boosting sustainable agricultural practices such as the use of direct seeding technology as well as sustainable cropping patterns.

Energy systems

As compared to the traditional power sector, damage to the renewable energy sector has been lesser in the COVID-19 times. This implies that the renewable industry is less prone to market disruptions.

Renewable energy has market opportunities as can be implied by the interest shown by financiers from international financial institutions and pension fund systems even during the pandemic times.

International cooperation

More projects need to be initiated through bilateral cooperation with India. The civil society needs to play a pertinent role to facilitate discussions between relevant stakeholders. Substantial funding opportunities such as 'Go For SDGs' have been created for projects; hence, leveraging on such opportunities is the need of the hour.

The forthcoming EU recovery plan will focus more on creating jobs, tax reforms, fiscal reforms and greening public procurement. There is a need to explore international cooperation opportunities for a circular economy and sustainable water management in the post COVID-19 era.

The international climate community has not been able to provide a concrete solution on international finance and market instruments. Timelines of low carbon scenario will need to be revisited in light of the COVID-19 situation keeping in mind the imperatives of sustainable development and poverty eradication.

DETAILED PROCEEDINGS

Rajani Ranjan Rashmi (Distinguished Fellow and Programme Director, TERI)

The chair welcomed everyone. He set the present COVID-19 context and said that although we are passing through tough times, the world is entering a decisive phase of the pandemic as governments are trying to wind down lockdowns and design economy revival packages. The packages are aimed at reviving major sectors with targeting of resources to have maximum impact. They represent investments that could play a role in kick starting the economy and contribute to economic growth. India has also come up with its own economic revival package equivalent to nearly USD 285 billion and announcements are being made by the Finance Minister in various tranches.

One of the questions we need to answer is how to use this opportunity to achieve environmental goals and nudge the government and industry in India in the right direction? Is it possible to use the financial leverage implicit in these packages? The 2008 crisis was a purely financial crisis and different from the present situation which is graver. The challenge for inclusive green economy in a post COVID-19 world is that both social and environmental positive outcomes are needed.

Present measures in India are focused on protecting the jobs and incomes of people in the unorganized sector. The first tranche of the INR 20 lakh crores economic package in India pertains to the MSME sector, which contributes to about 30% of the gross domestic product (GDP) and 40% of exports. For large sectors, liquidity relaxations were announced in India last month. Government is also working with multilateral institutions to revive the economy. However, the economic packages announced so far address liquidity issues.

For these economic measures to be inclusive, resilient and green, it is essential to go beyond liquidity issues and enter into the domain of reforms. From the climate change experience of negotiating for nationally determined contributions (NDCs), in the absence of clear market signals, green transitions do not take place on their own. Policy interventions are needed for market signals too. As mentioned earlier, energy transitions pick up speed only when the government pushes the market in the right direction.

The revival package of the government of India offers an opportunity to nudge the planners and concerned stakeholders and make them start thinking how they can encourage green opportunities and motivates businesses to promote environmental sustainability.

Key takeaways:

- For these economic measures to be inclusive, resilient and green, it is essential to go beyond liquidity issues and enter into the domain of reforms.
- Government greening ambition is vital in this regard as governments can nudge industries in the right direction by sending appropriate market signals. Energy transitions pick up speed only when the government raises the green ambition and pushes the market in that direction; then, operating costs and prices of renewable energy fall substantially.

Shantanu Gotmare (India Country Representative, Global Green Growth Institute)

The pandemic upheavals have led practitioners and stakeholders to reflect as COVID-19 has set in motion new dynamics. Given the many significant changes in the world, it becomes important to understand how green growth or green economy path should look. A green economy path should incentivize governments to decarbonize the economy by using this opportunity for the faster reduction of GHG (greenhouse gas) emissions and at the same time ensure that the benefits of this economy recovery reaches as many people as possible. It should also be kept in mind that the COVID-19 reconstruction strategy should be either cost neutral, have high growth potential or be risk reducing. For example, if a recovery path leads to interventions that can reduce risks from such pandemics in the future, then this becomes a worthwhile investment for the future rather than just aiming at creating higher growth. Since there will also be capital and budget constraints in the post COVID-19 era, optimizing budgets would be an important decision driver.

The other variable that can be added is the notion of ‘self-reliance’ and ‘self-sufficiency’ as in the vision by India’s Prime Minister that will require focus in the domestic manufacturing sector and could mean that manufacturing activities would increase. Major changes in the future would need to factor resource consumption, energy utilization and carbon footprint related activities. To add to these dimensions, is the dimension of SDGs that India is committed to achieve by 2030 along with NDC commitments. It is important to understand the way COVID-19 will impact India’s international commitments along with commitments under on-going national programmes such as *Har Ghar Jal Yojana* (which aims at making potable water available in every household by 2022) and programmes like MGNREGS for water security. Since many changes are foreseen in the future, it is important to come up with strong recommendations for greening the recovery of each sector. One example in the recent measures is an equity fund of about USD 8 billion for MSMEs that was announced by the government. In the recovery path, perhaps there can be daughter funds that can be completely focused on green economies. Mr. Gotmare concluded by welcoming the panellists to voice their ideas in the discussions.

Key takeaways:

- Recovery path should consider interventions that can reduce risks from pandemics as criteria for being a worthwhile investment in the future rather than just aiming at creating higher growth.
- Since the notion of ‘self-reliance’ and ‘self-sufficiency’ can lead to increased domestic manufacturing in India including in the MSME sector, perhaps there can be daughter funds in existing funds wherein the daughter funds can focus on green activities.

Ajay Mathur (Director General, The Energy and Resources Institute)

Dr. Mathur summed up the webinar which brought out three themes. The first one is that jobs, sustainable livelihoods and economic growth will be at the heart of the governance of economy policies made in India. The second is the need to give sustenance to people to survive or relief first, such as wage support, followed by recoveries to businesses followed by economic stimulus packages that will provide support. Thus, there are relief packages, recovery packages and economic stimulus packages; each of them has a different role, and hence, we should be careful in conveying what is needed in each one of them. Any major measure and policy will have the potential to lock in the growth path. The third aspect relates to a change in demand; negative demand is a very sticky issue for the economy. Though this decrease in demand will go away in the future, its behaviour is uncertain and we need to adapt according to the circumstances present. For example, there has been a change in work culture, leading to a change in kinds of transportation and work space. Therefore, an important aspect is that tomorrow's demand may not be the same as today's demand.

In these pandemic times, the world has witnessed clear skies but with huge costs to the economy, so the question pertains to what can be an acceptable economic cost. This is where public pressure is essential for changing the type of fuels used in industry, transportation and managing of agricultural residues. The demand tomorrow may not be the same as the demand yesterday. Demands will grow but at a much slower rate compared to that which was expected; this means that we will need a much longer time than up to 2026, 2027 or 2028, which was predicted, for our current capacities to reach its limits and might extend to 2030. We may see electricity growth at such low rates that the demand for coal may increase slowly; so slowly that it may never reach the levels that was predicted. Therefore, we are looking at a very different tomorrow than it was projected.

The uncertainties in the future have increased and from an investment perspective, this would imply minimizing operating costs. There will be a willingness to spend a little more on capital and which would mean a preference of renewables in the energy sector. Solar based electricity is the cheapest source of electricity. All of this suggests that we may have a future that is greener than we had in the past for which the economic stimulus packages are very important. The design of the implementation of these economic stimulus packages will help lock in particular choices for the future. It is also crucial to know how these packages are utilised. These economic packages may be used for economic growth on one hand but on the other hand, they might be used for creating jobs or building sustainable livelihoods. The jobs that will be thus created in infrastructure like renewables or charging stations will help create sustainable jobs and such jobs will remain in the market. Jobs creating sustainable livelihoods and economic growth, if acknowledged, will lead to greener recovery.

Key takeaways:

- The world has witnessed clear skies in pandemic times along with huge costs to the economy, so the question pertains to what can be an acceptable economic cost. There should be public pressure for changing technology paths such as fuel use in industry and transportation along with sustainable agricultural practices.
- Sustainable jobs in the energy sector need to be recognized as these jobs will stay in the markets and have the potential to lead to a green recovery. Utilization of economic packages is crucial for sustainable livelihood outcomes.

Ram Mohan Mishra (Secretary, National Commission for Scheduled Caste, NCSC and Former Special Secretary of Ministry of Micro Small and Medium Enterprises, Government of India)

This is an opportune time to discuss making economic packages contribute towards environmental sustainability. The COVID-19 pandemic has made us realize that it is time to go back to nature to not exploit it but to find sustainable solutions. In terms of existing interventions, funds of funds have scope for greening and so does the ZED (zero effect, zero defect) scheme, which has been altered for lean manufacturing, reducing wastage and greening of energy supply. Mr. Mishra reiterated the on-going and existing governmental efforts to drive the green transformation in India, for example, the ZED effects models in production mechanisms and processes, renewable energy development through international collaborations. There is also a scope for daughter funds to address issues related to sustainability.

The other important aspect pertains to knowledge. According to Mr. Mishra, the factors which can drive both consumer and investor behaviour is the associated knowledge on costs and benefits available to all the relevant stakeholders. The question is: Do we have the right kind of knowledge on costs and benefits for green and non-green activities? In general, more knowledge is needed for routine investments. Some incremental investment is needed for knowledge and research and integrating existing knowledge in terms of creation, synthesis, integration as well as dissemination. The present pool of knowledge is extremely disaggregated and fragmented. Hence, there is a need to consolidate and disseminate all necessary information on the existing investments and recalibrate these investments in addition to incremental investments. Mr. Mishra also emphasized the role of organizations like TERI in taking the lead on the aspect of knowledge and research.

Supply side changes also means facilitation from the government in terms of calibrating investment and government schemes so as to allocate more investment in ideas for informing decisions by investors and impact investors. There is a need to understand incremental investment in the form of viability gap funding for green to compete with non-green activities. There is also a need for government interventions to factor in innovations, skilling, reskilling, developing products and services within the market. This will contribute towards self-reliance. Environmental goods and services centric MSMEs need to be promoted. The many green funds, including CAMPA (Compensatory Afforestation Fund Act), needs to be directed in a targeted manner so that the many SDGs can be realized.

Key takeaways:

- A knowledge pool is required to stimulate investor and consumer behaviour. The present pool of knowledge is extremely disaggregated and fragmented. Hence, there is a need to consolidate and disseminate all necessary information on existing investments and recalibrate these investments in addition to incremental investments.
- An action plan is required to implement the *Atma Nirbhar* or self-reliance policy announced by the government so as to help facilitate MSMEs that produce environmental goods and services such as Ayurvedic products and health care.

Stephan Contius (Commissioner for the 2030 Agenda, German Federal Environment Ministry)

There is a need to join forces to fight against the virus and climate change; financial resources from both public and private sources should be used in both these areas as the goals and targets of the 2030 Agenda and the Paris Agreement need to be realized. There is a need for stimulus measures to lead to modernisation of economies, decarbonisation and sustainability measures. Mr. Contius stressed on the fact that survival of citizens is one of the most important priorities at present and hence, stimulus and recovery packages need to be targeted towards reinstalling social progress and decarbonisation strategies. According to Mr. Contius, the recovery packages need to be socially, economically and ecologically sustainable. He stated the importance of recovery packages announced by the European Union (EU). The EU and Germany are both committed to become climate neutral by 2050; in fact, the EU has announced the Green Deal. It is essential that the Green Deal looks at both economic and social aspects during the recovery in the EU.

There is a need to enhance cooperation with partner countries in terms of bilateral cooperation for greening recovery measures through IKI initiative (International Climate Initiative) and PAGE (Partnership for Action on Green Economy), where India is a partner country. The initiative called 'Go for SDGs' which is implemented by UNEP (United Nations Environment Programme), UNDP (United Nations Development Programme), ILO (International Labour Organization), World Economic Forum and the International Trade Union Confederation is also important. The German Environment Ministry has been one of the financial contributors of the green recovery transition.

Lock-ins of out-dated technologies should be avoided and discussions in India involving the business community are important. There should be an emphasis on conducting impact assessments for successful implementation of the economic packages. On the business side, there is increased awareness on green recovery transition post COVID-19 in the private sector; they are exerting considerable pressure on governments for policy restructuring.

Key takeaways:

- Private sector including the business sector should take the lead in putting adequate pressure on governments.
- More projects need to be initiated through bilateral cooperation with India and hence, the civil society should play a pertinent role in facilitating discussions between relevant

stakeholders. Substantial funding opportunities such as ‘Go For SDGs’ have been created for projects, hence, leveraging on such opportunities is the need of the hour.

Gavin McGillivray (Head, UK Department for International Development, India)

There should an emphasis on recovery measures that promote environmental sustainability and social justice and economic growth. The pandemic has laid bare the vulnerability of our present systems and has further highlighted the need for equity and environmental sustainability. According to Mr. Gavin, the recovery should not only focus on economic prosperity but also equally address the aspects of economic and social vulnerabilities associated with the current situation. These vulnerabilities being very closely related, the present situation demands discrete attention. In this context, he emphasized the vulnerable condition of the migrants and slum dwellers who have been gravely affected by the COVID-19 pandemic. Hence, to bring them back to normal life, solutions need to explore proactive pathways.

To address equity issues, bottom-up approaches and propositions are needed. Most of the ideas on greening recovery come from top-down approaches. Ideas on greening of recovery need to come from the most impacted people such as farmers, landless labourers and migrants. The pandemic has shown that bottom-up solutions are quick to emerge such as running of soup kitchens. Sheela Patel who is a founder of the Society for the Promotion of Area Resource Centers (SPARC) has extensively worked with the urban poor and according to her, one of the most important contributions that global institutions can make is to transform decision-making processes by which solutions should be looked at. Decision-making processes should include the village heads, landless labourers, migrants and farmers who should be given an opportunity to put their voices across. Local communities know what they need and there is a need for linking informal knowledge to formal knowledge institutions and processes for better ground-truthing.

The second proposition is the need to be more innovative so as to be able to turn ideas into actionable propositions; then beneficiaries will have the capacity to be able to turn proposals for measures like concessional benefits into reality. Many schemes have many dependents and project application and formal processes linked to these institutions become a source of inequity. There is a need for proactively fostering innovation in projects and policy formulation to encourage ideas from the informal sector and link it to formal processes

Key takeaways:

- Policies should not only be innovative but they must emanate from the needs of the common people and the informal sector who are usually not well represented in decision-making processes. Hence, global institutions should contribute to transforming these processes through which solutions are being looked at. There is a need to proactively create pathways for listening to the ideas of the common people.
- The central tenet in the green recovery transformation is to proactively foster innovation in project and policy formulations by linking the informal sector with the formal sector. Innovative solutions have to be converted into actionable propositions and the role of civil society is important for ensuring social justice and building capacities at the local level.

Henriette Faergemann (Counsellor, European Union Delegation to India)

The world at present is trying to cope with the COVID-19 crises. Hence, as a civilization, we have two alternatives: either we continue with the business as usual process or we transcend to a greener proposition. She emphasized on the green deal framework adopted by the EU in December 2019 that provides ample opportunities to facilitate the move towards green recovery. This green deal provides a roadmap to contain climate crises, environmental degradation and transform Europe into a resource efficient economy.

The EU climate law addresses the necessary steps to become carbon neutral by the year 2050. However, this will require investments in sustainable transportation, energy efficient buildings and energy efficient technologies for reduction of GHG emissions. This will require collaborations across the industry, government, academia, civil society and international partners. The forthcoming EU recovery plan will focus more on creating jobs, tax reforms, fiscal reforms and greening public procurement. The recently conducted EU India Summit established EU–India partnerships in solar power programmes, energy storage, rooftop solar programmes, clean Ganga initiative, resource efficiency initiative, sustainable urbanization to list a few. According to her, the EU will focus more on activities targeted towards the COVID-19 crisis through green recovery such as stimulation of circular economy and facilitating water management in the poor areas.

Key takeaways:

- The forthcoming EU recovery plan will focus more on creating jobs, tax reforms, fiscal reforms and greening public procurement.
- There is a need to explore international cooperation opportunities in circular economy and sustainable water management in the post COVID-19 era.

Rohit Kumar (Joint Secretary, Ministry of Rural Development, GOI)

The pandemic has resulted in tough times for our country and for the rest of the world. These times have shown that employment is an important issue; MGNREGS is an important source for this as the programme is providing wage employment to 24 million people each day in rural areas. Annually, 2.8 billion person days of wage employment is created and the government of India releases USD 10 billion annually which is expected to increase in the present year.

The MGNREGS programme has tremendous potential for greening as 63% of the resources goes to natural resource management (NRM) including soil and water conservation activities whose monetary worth is about USD 6.3 billion. NRM activities also have implications for the long-term and for programmes like *Jal Shakti Abhiyan* (strength through water and soil conservation) for which MGNREGS has been a major contributor. *Jal Jeevan Mission* (life through water) aims to provide potable water to every household in the next five years and would have the spending power of USD 10–12 billion for water source sustainability.

This programme has tremendous potential for facilitating the green recovery transition as a major chunk of total expenditure under MGNREGS goes into durable assets through management of natural resources, agriculture and allied activities such as soil conservation, afforestation measures and horticulture. Durable assets are required for agriculture and allied activities for which 14,000 villages plan using geoinformatics systems. Risk to value approach has been adopted for NRM activities. MGNREGS has the potential to address issues regarding migrant workers along with schemes like *Pradhan Mantri Garib Kalyan Yojana* (benefit for the poor) while creating durable assets. Self-reliance has implications for livelihoods but also for greening economy.

Key takeaways:

- There is a need for capacity building to reap the benefits of existing government schemes which can contribute to employment as well as to environmental sustainability.
- Emphasis on self-reliance approach to be adopted by the Indian government should result in the creation of durable assets through natural resource management and through agriculture and allied activities.

Bhanu Pratap Yadav (Joint Secretary, Ministry of New and Renewable Energy, Government of India)

Due to the pandemic, all sections of the society are able to appreciate the cleaner environment in terms of cleaner air and water. The energy system is important due to national and international climate commitments and there has been a lot of traction in recent times given that renewable energy has also become more competitive. There is already a lot of investment targeted for clean energy systems through various national and international collaborations. There has also been a surge interest from investors even during the COVID-19 crisis which is highly indicative of the market potential of renewable energy systems.

More and more utilities prefer renewable energy as an option. Moreover, renewable systems and projects have received support even during the lockdown period. As compared to the traditional power sector, damage to renewable energy has been lesser in the COVID-19 times. INR 90,000 crore relief was announced in the economic package which is to be given through REC (Rural Electrification Corporation) and PFC (Power Finance Corporations) to electricity distribution companies to consolidate their finance. There is a lot of traction from the demand side as corporates require renewable energy as a major source of power. Tariffs for renewable energy have been competitive and there is a lot of positive traction from the markets. However, to reap the benefits, market stimulating factors are required to sustain the demand for renewable power.

Amendment of the Electricity Act is likely to be finalized shortly. Many financiers from international financial institutions and pension fund systems have invested heavily in renewable energy projects even during the pandemic times and bidding activities have continued. Lots of manufacturers are looking to shift their manufacturing base to India including manufacturers for renewable energy appliances. India also has a competent workforce in the renewable energy sector; moreover, the government is thinking of coming out with export of renewable energy services.

Key takeaways:

- As compared to the traditional power sector, damage to renewable energy has been lesser in the COVID-19 times. This implies that the renewable energy industry is less prone to market disruptions.
- Renewable energy has market opportunities as there has been interest by financiers from international financial institutions and pension fund systems even during the pandemic times. There are market opportunities in the field of renewable energy services.

Rita Roy Choudhury (Assistant Secretary General, Federation of Indian Chambers of Commerce & Industry – FICCI)

Ms. Roy Choudhury emphasized on the opportunities which are posed by the COVID-19 crisis in which business will need to rescale and recalibrate their business models and generate resilient business models. There is also a need for businesses to look at long-term resilience through the SDG lens. Circular economy approaches needs to be part of this green transformation including resource efficiency.

Policy formulation needs to be revisited for public transport, non-motorised infrastructure, waste management etc. The transition to green economy will require cutting edge technology, sustainable finance in the form of long-term capital requirement, extended producer responsibility obligations, job creation, green skills and green entrepreneurship, drive consumer awareness and market development.

Key takeaways:

- Industry needs to rescale and recalibrate their models and come out with more resilient business models. There is a need to raise awareness across relevant stakeholders and provide an interface for deliberations.
- The transition to green economy will require cutting edge technology, sustainable finance in the form of long-term capital availability to be able to move towards a circular economy.

Abhishek Acharya (Joint Director, Department of Economic Affairs, Ministry of Finance, Government of India)

Mr. Acharya spoke specifically on the impact of the COVID-19 situation on climate action and the approach of the government of India.

India has been maintaining its economic position based on the nationally determined contribution and finance and technology needed for both mitigation and adaptation. The international climate community has not been able to come out with any concrete solution in terms of finance and market based instruments. Volatility of oil prices has also posed a question regarding energy choices. In a post COVID-19 situation, the entire structure of climate change needs to be revisited in terms of considering the outcome of the pandemic. Timelines of low carbon scenario will need to be revisited.

The idea of green development comes with the three pillars of SDGs, environment sustainability, inclusive economic growth and poverty eradication and all these have to be considered to proceed with climate action and international negotiating positions.

Key takeaways:

- The international climate community has not been able to come out with any concrete solution on international finance and market instruments.
- Timelines of low carbon scenario will need to be revisited in light of the COVID-19 situation while keeping in mind the imperatives of sustainable development and poverty eradication.

Chandra Bhushan (President & CEO, International Forum for Environment, Sustainability and Technology - iFOREST)

First, multiple stimulus packages will be needed. Learning from history, the present pandemic situation can be compared to the Great Depression. In the United States, in Roosevelt's times, an economic deal was sanctioned from 1933 to 1949, which was six years of economic stimulus packages. Similarly, economic damage done by COVID-19 will require long-term interventions and multiple stimulus packages. Green stimulus packages should be thought of as a long-term intervention. It should be expected that the initial 1–2 packages will be in demand terms and for relief measures. The world is in for a long haul and one or two economic packages should not be a cause for worry.

The language around economic packages is worrying and binaries of local versus global is damaging; this has been witnessed for about five decades in India before 1991. There are advantages in both local and global emphasis. Globalization is also important for technology, knowledge and values which are good for the environment. Self-reliance has to be nuanced and should not imply nationalization which can be more damaging for the environment as local may not always be good for the environment.

Language around green stimulus has to change. Stimulus should not be only about projects and programmes. The language around the world on green recovery is about sustainable finance and sustainable jobs. The language on green economy in India has to change and we should not merely go back to a pre COVID-19 language which mainly rests on the notion of market supremacy. The pandemic has shown that markets are fragile and are based on weak foundations. There should be a fundamental change in economic measures to address aspects of environmental sustainability. Any stimulus package should target fundamental changes. It is not only about setting up, say, an automobile scrapping facility, which is peripheral to address enormous environmental challenges such as climate change. Long haul stimulus packages need to be thought of so that there are fundamental changes in terms of agricultural practices and the way cities are built.

With regard to international cooperation on climate change, one lesson which the COVID-19 crisis has taught us is that every country is on its own. During the pandemic, so far, international cooperation has been low apart from sending a few medicines. Countries have undercut each

other including in crucial areas such as personal protective equipment. Climate change negotiators would need to fundamentally rethink the position about grand coalitions leading to action on climate change. Countries will be on their own for dealing with climate change; the aspect of self-reliance also needs to be examined in this context.

Key takeaways:

- Learning from the lessons of the Great Depression, multiple recovery packages can be expected. Green stimulus packages should be thought of as interventions for the long term. Stimulus measures should look at fundamental changes and not merely rely on market forces
- Self-reliance has to be nuanced and should not imply nationalization, which can be more damaging for the environment as local may not always be good for the environment. Self-reliance should also imply dealing with climate change and not merely relying on international cooperation.

Rita Pandey (Professor, National Institute of Public Finance and Policy)

In the context of fiscal and budgetary policy interventions, the new vision for development spoken by the Prime Minister is increasing India's participation in the global supply chain. Greening of the supply chain, both existing and new, will be needed. Other candidates for greening will be transport and infrastructure facilities like warehouse, value addition facilities and cold storages especially in the context of agriculture and allied sectors. The online retail sector would also get a boost with both regulation and fiscal incentives; we need to target greening of supply chains and delivery logistics (such as packaging and transport).

In terms of greening of GST, based on the concepts of environment friendly goods and services and other goods, we need to review the rates as well as cancel input credit for certain goods and services. Some work is already available on this but more work is required and a fresh look is needed at specific proposals.

Green budgeting should be used as a framework for better alignment of government spending with environmental objectives and sustainable development goals. This will be a good starting point in eventually moving towards integration of environmental concerns and concepts into development planning and budgeting. In terms of greening of the financial sector, some ideas and solutions are available in the literature and practice; we need to build on that.

In devolution of resources to states and local bodies, ways need to be found to provide performance linked funds to encourage performance on air quality, water quality and waste management

To contribute to self-reliance, equitable and inclusive development, there is a need to also explore mainstreaming of AYUSH (Ayurveda, Yoga, Unani, Siddha and Homoeopathy) systems for preventive, curative treatments of illnesses consistent with self-reliance, inclusive employment generation and export objectives. A robust programme involving research on technology, goods and services, scientific validation, regulatory approvals and stakeholder participation is needed.

Finally, a decentralized development model in India has a number of issues, the key issue being implementation at the local level. Poor administrative capabilities and poor quality of institutions are big constraints among others. Strengthening of these is critical in improving expenditure efficiency of public funds and boosting confidence of private sector to bring in investment.

Key takeaways:

- Green budgeting should be used as a framework for better alignment of spending with environmental objectives and sustainable development goals. This will be a good starting point in eventually moving towards integration of environmental concerns and concepts into development planning and budgeting.
- In terms of greening of GST, based on the concepts of environment friendly goods and services and other goods, we need to review the rates as well as cancel input credit for certain goods and services.

Ashish Chaturvedi (Director – Climate Change, Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ)

There is need to think about the long haul as immediate responses may not cover green aspects. However, immediate measures also offer a possibility. For example MGNREGS can be used to manage the paddy stubble (including in-situ management) for improving air quality. An urban employment guarantee scheme can be thought of for managing waste and for waste. Even immediate commitments can address national commitments such as 26 million hectares for addressing land degradation and 2.5–3 billion tonnes for carbon sequestration through forest related activities by using labour towards the same.

There is a need for an overall framework to assess the actions of the government as well as suggest actions for medium and long term. There is a need to think about fundamental principles such as the Pareto principle, precautionary principle, decentralization and participation in this framework. Health needs to be thought of holistically in terms of environment and human health so as to enable better cross-ministerial and inter-agency coordination. Ecosystem services can help to look at the holistic notion of health.

Key takeaways:

- Health needs to be looked at more holistically in terms of both human and environmental health and the concept of ecosystem services can aid in the same.
- A framework is needed to examine green recovery in terms of assessing current actions of the government as well as to suggest actions for medium and long term.

Anubha Prasad (National Coordinator – PAGE India, United Nations Environment Programme)

There needs to be a clear distinction between relief measures and long-term recovery measures. Green measures would have to be mostly linked to long-term recovery measures. Most of the measures announced so far for MSMEs include mostly credit interventions and liquidity

infusion. The aspect of changing MSME definition has been pending for more than five years and the related announcement is not be linked to the COVID-19 pandemic.

An equity fund of INR 50,000 crores has been announced and daughter funds which are green oriented through funds of fund (FOF) mechanism can be a starting point for greening MSME interventions. For the banking sector to nudge MSMEs towards circularity, concessional and incentive-based credit is required.

Self-reliance should also be looked at from the perspective of local employment for migrants going back home or in urban areas in areas of circularity and waste management. In terms of demand, sustainable infrastructure including in the health sectors can be examined. The government also announced measures related to public procurement and this can be an opportunity for pushing sustainable public procurement through which sustainability can be fostered for greening economic recovery in India.

Key takeaways:

- For the banking sector to nudge MSMEs towards resource efficiency and circularity, concessional and incentive-based credit is required.
- Measures related to public procurement should be seen as an opportunity for pushing sustainable public procurement in India.

Bhasker Tripathi (Principal Correspondent, IndiaSpend)

The world is enjoying a clean environment right now due to COVID-19 induced lockdown and there are analyses that show that India's CO₂ emission has also gone down. The 2008 economic crisis shows that right after the crisis, when the world entered into a recovery mode, the emissions, especially from the power and construction sector increased by many folds and surpassed the pre-2008 crisis levels.

India has opportunities in terms of renewables which also has implications for rural economy, jobs, energy access and environment. The International Labour Organization has found that if 40 per cent of India's electricity comes from renewables by 2030, the country could add about 3 million new jobs which will be more than offset the 259,000 jobs that could be lost by the scaling down of carbon-intensive and resource-intensive industries. For this, capacity of rural workers would have to be built by training and information. Rural workforce can be skilled for these jobs and *Suryamitra* (friend of the sun) programme of the Indian government could be helpful in training the workforce for these jobs.

These jobs, 80% of which are contractual right now, can be converted into 'good jobs' or 'decent jobs' with benefits. The question is: can the government ramp up training centres under Skill India mission to help fix this problem? Most centres under Skill India are in urban spaces making access difficult and costly for most rural workers, especially women. Training modules taught at these centres are also not aligned with on-site needs so the government can closely work with the industry and job markets to develop modules that reflect the ground reality. Moreover, most of these training centres give permissions for training to those who have passed 12th standard or are graduates. This leaves a large part of the workforce unable to access training. We know there are

jobs for which soft skills are not necessarily needed; the uneducated workforce can be trained for these jobs. Further programmes like MGNREGS can also be linked with green infrastructure building.

In terms of farm policies, there is a huge scope to revisit or mould agriculture practices through policy interventions and incentives. As an example, paddy sowing in water-stressed Punjab is a huge problem not only for the local resources like water but for the environment as well, because the stubble produced due to inefficient agriculture practices adds to the Delhi air crisis. However, due to the COVID-19 shock, in Punjab, labourers for paddy plantation are not available right now. Because of this a lot of farmers are now seeking technology interventions, for example, direct seed sowing machines. These machines help to reduce the input cost and reduce the problem of stubble generation. Solutions can be captured arising out of dire needs amid the COVID-19 crisis and could also be scaled up if they solve issues that have been lingering for decades.

Key takeaways:

- Economic packages can cater to rural workforces who can be skilled personnel in the renewable energy sector through *Suryamitra* programme. Skill India training centres which currently mostly cater to urban areas can be expanded to rural areas along with stronger market and industry linkages in terms of the training and course content.
- The present farm labour situation in states like Punjab can be turned into an opportunity for boosting sustainable agricultural practices such as the use of direct seeding technology as well as sustainable cropping patterns.

ANNEXURE: Agenda of the Event

Date: 14 May 2020 (Thursday)

Time: 4:00 PM to 5:30 PM (1600 to 1730 hours), India Time

Event chairs

- Mr. R R Rashmi (Distinguished Fellow and Programme Director, IPAD, TERI)
- Mr. Shantanu Gotmare (India Country Representative, GGGI)

Welcome Remarks

- Dr. Ajay Mathur (Director General, TERI)

Chairs' Remarks**Framing Presentation**

- Ms. Shailly Kedia (Fellow, TERI)

Keynote Address (4–5 minutes each)

- Mr. Ram Mohan Mishra (Secretary, NCSC and Former Special Secretary of Ministry of Micro Small and Medium Enterprises, Government of India – GOI)
- Mr. Stephan Contius (Commissioner for the 2030 Agenda, German Federal Environment Ministry)
- Mr. Gavin McGillivray (Head, UK Department for International Development, India)
- Ms. Henriette Faergemann (Counsellor, European Union Delegation to India)

Thematic Address (4–5 minutes each)

- Mr. Rohit Kumar (Joint Secretary, Ministry of Rural Development, GOI)
- Mr. Bhanu Pratap Yadav (Joint Secretary, Ministry of New and Renewable Energy, GOI)
- Ms. Rita Roy Choudhury (Assistant Secretary General, Federation of Indian Chambers of Commerce & Industry – FICCI)
- Mr. Rajive Chawla (Chairman, Integrated Association of Micro, Small & Medium Enterprises of India)
- Ms. Seema Arora (Deputy Director General, Confederation of Indian Industry – CII)

Panel Discussion (2–3 minutes each)

- Mr. Abhishek Acharya (Joint Director, Department of Economic Affairs, Ministry of Finance, GOI)
- Mr. Chandra Bhushan (President & CEO, International Forum for Environment, Sustainability and Technology - iFOREST)
- Mr K Narayana Rao (President – Corporate Relations, GMR Group)
- Mr Pankaj Sindwani (Chief Business Officer, Tata Cleantech Capital)
- Dr. Rita Pandey (Professor, National Institute of Public Finance and Policy)
- Dr. Ashish Chaturvedi (Director – Climate Change, Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ)
- Ms. Anubha Prasad (National Coordinator – PAGE India, United Nations Environment Programme)
- Mr. Bhasker Tripathi (Principal Correspondent, IndiaSpend)

Key Takeaways and Ways Forward by Chairs**Vote of Thanks**

- Mr. Souvik Bhattacharjya (Associate Director, CREG, TERI)

About

The COVID-19 crisis has shown that growth must be both inclusive and sustainable in the long term. Recently, the Prime Minister announced a special economic package of INR 20 lakh crores for 'Atma Nirbhar Bharat' or a 'self-reliant India' which would better integrate India with the world. The package provides an opportunity to take much awaited steps to green the economy in sectors that have the maximum impact on sustainable development. Both sustenance and sustainability have to be the cornerstones of economic recovery as India responds to this crisis. In this background, The Energy and Resources Institute (TERI) along with the Global Green Growth Institute (GGGI) organised a webinar on greening of economic recovery in India on 14 May 2020. The discussions brought in perspectives ranging from direct support interventions, restructuring existing programmes and schemes, to skill and knowledge management for economies to remain green, and addressing demand and demographic issues. The webinar and the proceedings prepared thereafter aim to serve the constructivist function of facilitating discussion on the topic of greening post COVID-19 economic recovery.

Documentation

The proceedings were prepared by Shailly Kedia, Ria Sinha and Mani Juneja who are researchers at TERI. The copy-editing was done by Jebah David.

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