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"ADVENT OF GREEN FINANCE MECHANISMS IN DEVELOPING COUNTRIES: A CASE STUDY ON THE BACKGROUND OF COVID – 19"

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Abstract

To stand the shocking impact of COVID-19, calls are growing for countries to 're-build quicker' is an effort to create a more inclusive and sustainable economy that is climate resilient. India is facing conspicuous development and climate risk challenges, but the post-COVID-19 recovery plan offers it an opportunity to revamp the economy using a green framework. In particular, green finance mechanisms can be employed for the Asian continent's green recovery, especially India. The objective of this policy briefing is to explore best practices in channelling green investment towards green economic recovery to promote inclusive and sustainable investment. Examples of such best practices include green investment infrastructure and renewable energy, green funds and other market-based mechanisms, ensuring stimulus investments focus on green fiscal reform, redirecting existing funding, greening the financial sector and developing green segments. India can fortify its weakened economy using a new and resilient green framework driving national development leaving behind old development pathways, putting into action Indian owned growth models that are sustainable, inclusive and resilient.

Keywords: Green Finance, Green Investment, Green Fiscal Reforms, Sustainable Financing, Green Economy.

INTRODUCTION

The global spread of COVID-19 in a quite short period of time has taken a negative toll on Indian economies never witnessed before. Beyond the immediate health crisis, the pandemic has sparked an economic slowdown that has severely hampered India's development ambitions, curtailing two decades of macroeconomic improvements and socio-economic gains. The sudden and steep decline in industrial production, energy demand, and transport activity has prompted debates about long-term shifts in consumer and industrial behaviour.

Such shifts could restructure economic policy towards the Sustainable Development Goals (SDGs) despite rising debt levels and falling export revenues, which will make financing green investments a challenge for India is one of the building blocks of Green Economy readiness in India [1]. Political will is the key success factor in unlocking green finance, which comprises financial policies, programmes, products and services that assist the transformation of an economy, also including its systems and institutions, to attain sustainable development. [2]

Even though the importance of green finance has seen substantial growth within the last few years, COVID-19 has made it even more prominent as a central theme giving rise to new sustainable economic recovery strategies and policies considering the pandemic. It is against this backdrop that this policy briefing provides insight into numerous green growth financing mechanisms that can be advantageous for India's green recovery.

It also gives emphasis on green/environmental funds and other market-based mechanisms including green and ethical banks. The policy briefing then shifts focus to renewable energy and infrastructure investment. The final segment explores in detail green stimulus investment packages, green fiscal reform, greening the financial sector, and the development of sustainability segments.

GREEN FUNDS AND ITS MARKET MECHANISMS

Climate finance has become a major concern in addressing both climate change and sustainable development objectives. This has led to a widening of the scope and mandate of environmental funds (EFs), which are the primary financing mechanisms for the implementation of national environmental action plans and green programmes.

The addition of stakeholders from the private sector and non-governmental organisations will further allow greater transparency in the governance and management of EFs. Government funding should be utilized to capitalise EFs and to act as a stimulus to crowd-in private and donor investments. EFs should, however, focus to have diverse revenue streams in the medium to long term. Having straight and clear priorities will assist in attracting grant funding. However, it should be noted that proper due diligence processes are followed to ascertain the bankability, scalability, additionality, replicability, and sustainability of the project. This will help to sort out the key sectors driving the Green Economy transition in a country while showcasing sectors

that may need further support. EFs should also take into consideration funding innovative and strategic capacity-building programmes to support and strengthen domestic capabilities like infrastructure, resources and products, and skills in pursuit of a change to a Green Economy. [3] In order to ascertain that the investments made now have long-lasting impacts, any economic assistance by the government, private sector or donor community should be par with resilient and climate-smart growth.

For any market strategy to be successful in unlocking green finance, it should give importance to creating a dedicated green fund, de-risking investments and credit enhancement, and co-investing with local financial institutions. De-risking can be achieved by giving out long-term grants and concessionary funding to an investment. Public capital can be utilised to provide credit enhancements (by government-owned Development Finance Institutions [DFIs]) that will allure private capital to sustainable green investments and serve to de-risk investments partially for the private sector. This allows the investment to meet the required rate of return. Market practice strategies to unlock green finance should also include co-investment by the private sector for large projects and the generation of umbrella facilities to local financial institutions. DFIs or green banks can move forward the minimum financing required to make the investment feasible, with the remainder of the financing requirement topped up with private capital. Public funds are used to leverage private sector funding this way. When it comes to lending to small and medium-sized enterprises (SMEs) with good investment opportunities but huge transaction costs per dollar invested due to their small size, international funders can issue a large umbrella facility to a local financial institution with low transaction costs. This enables them to on-lend those funds to smaller entities and projects. [4]

Indian Economy has now started to make use of innovative financing approaches such as 'green market-ready products'. [5] It is a green growth fund that will be replenished through proceeds from trading credits from emission reducing projects, crowd-funding for clean energy and green bond financing to capitalise adaptation and sustainable development projects. The creation of green and ethical banks has been a noteworthy development in sustainable finance. Ethical banks are considered financial institutions that invest ethically and sustainably. These banks only offer ethical investments developed by ethical borrowers to lure ethical investors, which further paves way for greater mobilisation of local currency funding for sustainable investments.

Green banks are identified as public-purpose finance institutions dedicated solely to green investment with the aim of addressing the shortfall in the local market's climate investment. India's National Strategy for Sustainable Development and Action Plan is a policy framework that sets out steps for a jump to a Green Economy. In 2012, it laid the foundation for establishing its Green Fund. The fund forms a part of a national environmental programme managed and implemented by the Asian Development Bank (ADB). One of its directives is to leverage and attract additional resources to assist India's transition to a Green Economy through the use of public finance as a stimulus for green investments. [6]

USE OF RENEWABLE ENERGY

Renewable energy is slowly turning out to be increasingly cheaper than fossil fuels. The difference between the 2008 global financial crisis and the ongoing COVID-19 crisis is that the cost of renewable energy generation is now at par with that of fossil fuels. [7] As such a green recovery plan in India should scrutinise renewable energy as one of the main elements of economic stimulus packages post-COVID-19. Renewables bring to light a way to re-structure short-term policy action with medium- and long-term energy and climate goals, and as such must be the backbone of national efforts to restart economies in the wake of the crisis. Policy reforms that cut renewable power costs can shift markets and contribute more to a green recovery. As lockdowns are lifted, energy demand will be on the rise as additional energy capacity is required. This gives countries an opportunity to provide clean and affordable power and the energy security needed for a sustainable recovery of the economy.

Governments can make maximum use this opportunity to stimulate demand by electrifying their economy with renewable energy. This could be a key factor in economic recovery as it can provide new electricity infrastructure with private investments, and help the continent achieve sustainable economic recovery. Governments should be quick in implementing regulations that are fit for purpose, putting clean energy investments at the centre of economic recovery and economic stimulus packages. Care must also be taken to include market designs that provide long-term price visibility and streamlined permitting that allows rapid ramp-up of the deployment of renewables. [8]

INFRASTRUCTURE INVESTMENT

With increased protectionism as part of the post-COVID-19 future, some countries will devise a strategy that places the state at the epicentre of their economic recovery, as infrastructure will be the driver of growth. [9] India has been pertinacious in under-spending on infrastructure. Aggregate demand is foreseen to remain depressed for some time, leaving governments to come up with further policy measures to stimulate economic activity through spending. They can be made 21st-century ready by bringing about investing in a modern, zero-carbon infrastructure system and a green energy environment. [10] This will prove to be effective in addressing depressed demand by creating jobs while also laying the base for sustainable long-term growth. Although feasibility in developing countries is a matter of concern, countries could further explore various arenas for funding green infrastructure. These include redirecting fossil fuel subsidies towards more productive and sustainable areas of the economy, and implementing energy or carbon taxes. Investment in modern, resilient, sustainable and adaptable infrastructure is crucial to sustain the continent's growth and enable it to operate effectively in future.

GREEN INVESTMENT

A green stimulus of investment should form the core of India's recovery effort. Instead of transplanting green stimulus models from developed countries, such plans should be tailored to domestic socio-economic conditions. Green stimulus packages should be framed by the principles of harnessing domestic solutions and building local capacity, also improving climate resilience and reducing carbon intensity and resource inefficiencies in Indian economy. These packages should be widened beyond renewable energy to include water and other ecological infrastructure. [11]

The five pillars of green investment/ recovery schemes are; [12]

1. Build the network infrastructure suitable for a green and just transition. This includes smart electricity and water grids, e-mobility and broadband infrastructure and improved rail and waste management.
2. Regulatory changes must be undertaken to unlock private sector investment in sustainable energy, water, waste and sanitation systems. For instance, governments have come out with emergency water and sanitation provisions to un/under-serviced informal communities as they are considered hotspots for the quick spread of COVID-19.
3. Provide support to localisation of manufacturing technologies including smart meters, biomaterials, electric vehicles, batteries and green hydrogen, while stimulating sustainable tourism and agriculture. Since the start of COVID-19 pandemic, investors have been on the search for investment opportunities in the Green Economy that will deliver returns, including green technology solutions. There should also be a re-evaluation of technologies that could be deployed in communities that prove to be more sustainable and affordable for local government.
4. Provide easy access to sustainable services such as sustainable housing and mobility.
5. Implement fiscal reforms to remove fossil fuel subsidies, incentivise new green solutions, promote resource efficiency and preservation, and reform energy and water tariff structures to make pricing inclusive, thereby driving a behavioural change.

GREEN FISCAL REFORM

Green fiscal reform can be considered to be the umbrella term for the application of pricing mechanisms that internalise externalities and mobilise public revenues. Environmental Fiscal Reform (EFR) uses multitude of tax and pricing instruments that can raise revenues while furthering environmental goals such as weakening climate change. There is a range of EFR instruments, but their suitability is subject to change by country and sector. In particular, environmental taxes are employed to deal with negative externalities. Cap-and-Trade systems are 'internalising' mechanisms for greenhouse gas (GHG) emissions that set maximum levels of emissions and provide incentives to stay below those levels through a trading system. Investment incentives that are implemented include low-interest loans, tax exemptions and micro finance. Other incentives offering direct support are subsidies and feed-in tariffs. [13] Green fiscal policy instruments such as carbon tax and fossil fuel subsidies are helpful in generating and re-allocating significant resources for economic recovery measures by incentivising greener solutions and energy efficiency recovery plans.

Green fiscal reforms, if designed and implemented well, can be a valuable instrument for medium- to long-term rationalisation of inefficient expenditures which includes environmentally harmful subsidies and the alignment of domestic budget processes with national development plans aimed in reaching sustainable and inclusive growth. [14] Green fiscal reform has not yet taken off owing to impediments such as special interest groupings' lobbying against it; lack of political will; limited transparency and awareness; and administrative, institutional and technological constraints. However it has become important to assess the efficiency and distributional implications of any proposed environmental fiscal reforms. [15]

FOCUS ON SUSTAINABLE FINANCING

Sustainable finance is not just increasing investments through new funding streams it is also about finding ways to reconstruct existing financing streams to achieve multiple SDG goals at the same time. Public procurement acts as a lever to achieve development impact. Support for green projects such as renewable power, energy efficiency and climate change adaptation measures to lessen emissions and reduce energy use will help push Indian economy towards a sustainable economic growth path. A total of $234.3 million of these funds was previously issued to trade-related investment now it is diverted to those sectors most affected by the pandemic. [16]

There should be a continuous review and update of existing government expenditure plans with the aim of adding energy and public transport projects, as they take a long time to prepare. Similarly, national budgets can be reallocated with the view of putting national climate/green/ environmental funds in the centre of economic recovery plans.

GREENING THE FINANCIAL SECTOR

Following a lack of clarity about which activities and assets can be termed defined as green, which was an obstacle to scaling up green finance, the World Bank issued guidelines for developing a green taxonomy. This helps in scaling up green finance and assist regulators in emerging economies to 'green' their domestic financial systems.

A 'green taxonomy' is a common language on environmental issues used in the financial sector. It sorts out activities or investments that deliver on environmental objectives, thereby enabling the financial sector to efficiently route capital towards environmentally sustainable projects by originating and structuring green banking products including loans, credits and guarantees. [17] In such a market, investors seeking impact investment opportunities can identify those

opportunities that comply with sustainability criteria with ease. The methodology and recommended approach rejects one-size-fits-all definitions and standards by developing a taxonomy based on a country's particular environmental objectives.

RBI plays a major role in speeding up the development of green finance in their domestic markets. They are compelled to intervene as regulators to unlock green and sustainable finance by lessening information asymmetries and requiring financial institutions to change risk management frameworks to take environmental, social and governance factors into consideration. RBI as a regulatory authority intervened can also make sure that financial institutions provide a technically sound justification for those activities and investments that fall in the green category. This is because environmental risks are not considered in Basel III, which provides the main regulatory guidelines concerning the global banking system. A voluntary approach is suggested for countries that have not yet started merging green finance considerations into central bank regulations. [18]

Central banks have a prominent role to play in 'greening' financial systems, especially in developing and emerging economies where environmental regulations are badly implemented by not so powerful public institutions. In developing and emerging markets, central banks are powerful and sophisticated institutions that surpass the dominant banking sector within the financial system. If central banks were assigned an environmental mandate, they could effectively exert a hold over private investment decisions through their dominance over the banking sector. [19]

In addition, central banks in India, financial market expertise and transnational networks through their various regional and continental initiatives can boost up 'best practice' reforms in the Indian financial sector. The UN Environment Programme recommends, with caution, potential tools that central banks can make use of two impact investment decisions, create and allocate credit into green investments, and redirect credit from environmentally harmful activities.

Introduce green macro prudential regulation and climate-related stress testing to tame environmental systemic risk. The former includes ceilings on credit extension to certain carbon-intensive or polluting activities and exemptions from credit ceilings which channel investments into priority sectors. Suggested macro prudential instruments include higher risk weights either for carbon-intensive and dependent sectors such as transport, mining and energy or for particularly carbon-intensive and dependent companies in these sectors. Climate-related stress testing would calculate the likely impact of hypothetical climate scenarios on the financial health of individual financial institutions and the financial system as a whole with the aim of determining their resilience to adverse shocks.

Use directed green credit policy instruments such as differential rediscount rates to incentivise commercial banks to extend credit to green investments with rediscounted bills at a much lesser loan rates. There will be some partial or full compensation for lending at subsidised rates of interest when they rediscount priority loans at the central bank on concessional terms.

Green differentiated reserve requirements permit central banks to lower required reserve rates on privileged green assets. This favours green investments over traditional investments.

Under BASEL III, the institute differentiated capital requirements for low carbon activities or green projects as it is done for loans to SMEs.

Accept carbon certificates for low-carbon projects as part of commercial banks' legal reserves as this will boost their market and make them exchangeable for concessional loans. This will help in reducing the capital costs of low-carbon projects.

Encourage green quantitative easing, whereby asset purchases are routed toward green financial assets such as green bonds, and reserve management which permits central banks to manage their assets according to social impact investment standards. This would release an additional $26 trillion to the funds already pledged under the UN Principles on Responsible Investing.

Develop green finance guidelines and frameworks which help in guiding banks towards greener lending.

The Financial Stability Board recommends mandatory disclosure requirements for all financial organisations in their public financial filings. This is done with a view to improve the transparency of climate-related risks and will provide the basis for green macro-prudential regulation and climate-related stress testing. [20]

Green bond issuance and green infrastructure investment account for less than 2% of total bond issuance and total infrastructure investment in 2017. [21] The global green bond market has witnessed a rise from $155.5 billion worth of issues in 2018 to an estimated $260–$350 billion the next year, i.e., 2019 – 2020. [22] Central banks have the convening role and soft power to encourage the development of new green market segments or products. According to the Climate Bond Initiative, green bonds were issued to fund projects that have positive environmental or climate benefits. Issuing green bonds can become an important financial mechanism to aid a green economic recovery. This is because they are aligned with the objective of controlling the climate crisis and can further nurture struggling domestic economies in India through investments in the renewable energy market. Green bonds have a huge potential for growth, with investors interested in containing global warming, but they tend to shy away from markets with negative credit ratings. Green bonds

happen to be oversubscribed and have advantages such as tax exemptions, making them a good option for countries that have had to approach financial institutions like the International Monetary Fund for funding to diminish the effects of COVID-19.

In light of the pandemic, efforts to develop green bond frameworks and identify a pipeline of eligible green projects should be promoted. Sub- and quasi-sovereign issuers are varied in terms of geography and project type, which shows the flexibility of green bonds and their ability to be tailored to local circumstances. Encouraging green finance in Indian markets also requires governments to implement public policy shifts in favour of greener and more climate-resilient economies while on the other hand creating fiscal policies that make holding green assets more luring.

CONCLUSION

Emerging and developing countries are the least prepared when it comes to recovering from the twin COVID climate crises. A return to business as usual after the pandemic is a herculean task and innovative ways of reshaping India's recovery and long-term sustainable growth and development are the need of the hour. In the light of COVID-19 pandemic, among other countries, economic recovery plans have to be set to achieve ambitious targets which include large infrastructure build programmes. This makes it the right time to shift to green financing initiatives that will help these countries to tap into an investor base looking for exposure to green assets. With appropriate support from External Monetary Agency's support such as IMF, WB, ADB, etc., India can fortify its weakened economy using a new and resilient green framework driving national development leaving behind old development pathways, putting into action Indian owned growth models that are sustainable, inclusive and resilient.

SUGGESTIONS

- Indian governments should enhance efforts to employ the various green growth financing mechanisms presented in the policy briefing (i.e., accelerating investments in infrastructure and renewable energy, establishing or revamping green funds and other market-based mechanisms, ensuring stimulus investments that focus on the Green Economy, implementing green fiscal reforms, redirecting existing funding, greening the financial sector and developing green segments) that they find suitable to their domestic markets and developmental challenges.
- In particular, green bonds can be used as one of the most readily accessible and economical options to help raise huge amounts of capital for infrastructure development to meet environmental achievements in India.
- For a quick transition to a green economy targeted public finance is needed as it decreases investment risk. This can be achieved by creating a stimulus for green investments and leveraging private finance for green investments especially now that private capital exhibits growing interest in supporting the achievement of SDGs.

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