MOBILIZING THE PRIVATE SECTOR FOR DEVELOPING RESILIENT INFRASTRUCTURE IN INDIA

June 29, 2021 16:00 - 17:30 IST

AGENDA	
16:00-16:05 PM IST	Welcome Address: **Tamiksha Singh**, Associate Fellow, TERI
16:05-16:15 PM IST	Context Setting Presentation: **Ritu Ahuja**, Research Associate, TERI
16:15-16:25 PM IST	Keynote Address: **Mr Sandeep Poundrik**, Director General, Coalition for Disaster Resilient Infrastructure (CDRI)
16:25-16:30 PM IST	Opening remarks by the Chair: **Mr. RR Rashmi**, Director and Distinguished Fellow, TERI
16:30-17:15 PM IST	Panel Discussion chaired by Mr RR Rashmi: i. **Dr. Saleem- Ul Haq**, Director, International Centre for Climate Change and Development (ICCCAD) in Bangladesh ii. **Ms. Sunita Purshottam**, Head of Sustainability, Mahindra Lifespaces iii. **Ms. Anu Jogesh**, Associate Director, Climate and Resilience Hub, Willis Towers Watson iv. **Ms. Sharmila Chavaly**, Former Principal Financial Advisor, Northern Railways v. **Mr Saurabh Bhardwaj**, Fellow - Climate Modelling, TERI
17:15-17:30 PM IST	**Q&A**

SUMMARY OF DISCUSSIONS

The webinar started with **Ms. Tamiksha Singh** welcoming the panelists and participants in the webinar. She introduced the increasing global requirements for infrastructure finance, the need to direct finance towards climate resilient infrastructure, and the important role that the private sector can play here. She went on mention TERI's study focused on this topic, which was supported by the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), and which sets the stage for the discussion.

Ms. Ritu Ahuja, presented insights from TERI's study on "Mobilizing the Private Sector for Developing Resilient Infrastructure in India". The study was aimed at assessing the role of private sector in financing resilient infrastructure. Through the presentation, she gave an overview of the key barriers identified that the private sector faces when mobilizing finance for the resilient infrastructure and highlighted three areas where measures are needed to address the gap – namely strengthening the governance landscape with appropriate policy and regulatory mechanisms, building capacity to develop bankable projects and effective interventions, and designing supportive financial mechanisms and instruments. With this context, she introduced the key questions for the following discussion, which was focused on priority measures required to address the barriers for developing climate resilient infrastructure and enabling private sector participation for this.

The discussion started with a **keynote address by Mr Sandeep Poundrik**. He introduced the Coalition for Disaster Resilient Infrastructure (CDRI), giving an insight into the vision resulting in its formation, India's perspective and the current priorities of CDRI. He highlighted that CDRI, which was launched in 2019, has already seen large scale global participation and interest, and is supporting assessments focusing on critical infrastructure systems, like power, telecom, transport, health. He mentioned how these systems require better integration of a resilience lens within their operations, with an increasingly critical input being informed from the disaster risk management perspective. He emphasized on disaster risk finance for building infrastructure resilience as being a focus area of CDRI, and set the tone for the discussion by highlighting the need to address the global infrastructure financing gap, which has to be done through a collaborative approach of both public and private sector actors. He then gave a brief overview of two options that can be developed to bring in the private sector for investing in resilient infrastructure - firstly, as a business case, where investments are dependent on cost-benefit analysis of integrating elements of resilience; and secondly, through regulation, statutory laws or norms. Mr Poundrik closed his remarks by mentioning how financial instruments can play a role in encouraging climate resilience, identifying resilience bonds or green bonds as important emerging finance mechanisms for this.

The keynote address was followed by opening remarks from **Mr. R.R. Rashmi**, who chaired the panel discussion. He briefed the panelists and audience on the challenges of financing adaptation and climate resilience, considering the large number of stakeholders and activities involved, and a complex nexus between people, livelihoods and infrastructure. He mentioned how public finance is the major source of infrastructure finance in India and the growing role of Public Private Partnerships (PPP) as a mechanism to reduce risk associated with investing in this sector. Specifically focusing on the challenges that need to be filled when looking at climate resilient infrastructure, Mr Rashmi highlighted the gaps in terms of - capacity gaps in finance for adaptation and infrastructure; asymmetrical information among key stakeholders, who need financing guidelines for taking into consideration climate impacts and long-term benefits for investing in resilient infrastructure; and gaps in regulation, where there is a need of a stronger regulatory framework for enabling the development of resilient infrastructure.

With this background Mr Rashmi set the stage for panelists to give their viewpoints on the key questions for guiding the discussion:

- How critical is the role for private sector for addressing the issue of resilient infrastructure?
- What are the primary prerequisites from policy and regulatory perspective?
- What are the effective means of mobilizing finance in terms of which financing instruments are most viable?

As the first panelist, **Dr. Saleem- Ul Haq**, started the discussion by mentioning the state of infrastructure in his country of Bangladesh. He shared the example of increasing investment in the mitigation side of infrastructure. Through this example of solar energy infrastructure, he presented the increasing investments through a collaborative approach of PPP and now through viable commercial investments for solar energy technology. Using this case study he pointed out the possibility of scaling up such infrastructural investments. The issue, as he highlighted, about dealing with climate impacts, was of less profit opportunity for private sector considering the risks associated with such investments, especially for small and medium scale industries. This is where he emphasized the need to better facilitate knowledge sharing, regarding the need of investing in adaptive/resilient solutions. This knowledge sharing and capacity building on the awareness side should be initiated by the public sector, with support from other relevant actors from the financial institutions, banks and insurance companies. He provided another example of how Bangladesh Central Bank is providing low interest loans to companies to invest in resilient infrastructure, which still needs to be scaled up however is a step in the right direction. A key point from his intervention was- the necessity to make the information available from academic and research community, to the relevant ac-

tors at the policymaking level in the government and at the institutional level with the businesses, to enable them to understand the issue and to figure out what they can do to minimize the risk, as well as develop opportunities for profit generation, with new resilient knowledge and products.

Ms. Sunita Purshottam, then provided the private sector perspective to the discussion. She mentioned how Mahindra Lifespaces is building resilience in infrastructure through a 'nature positive' approach, which develops an understanding of the risks associated with the changing climate and how nature can provide buffering and risk mitigating capabilities on this development pathway. She shared how her organization, for all their residential projects, have adopted the 'climate responsive' design approach, re-looking at how climate change may impact the thermal comfort and visual comfort of the home owners. She called attention to the need to integrate climate responsive design into the decision-making process. She concluded by stating that from the short-term perspective, the private sector perceives climate risk as a direct disruption of construction related activities, leading to delays and cost over-runs, and hence infrastructure project implementation plans should also take climate risks into consideration.

Ms Anu Jogesh started off by discussing the categorization of climate resilient infrastructure into two brackets - private sector putting in place mechanisms to assess and manage climate risks to their own business operations and physical assets; and private sector addressing the public infrastructure investment gap by using design and financing approaches to ensure that both economic and social assets are made climate resilient. Building on this classification, she pointed out to the growing global need for private sector to assess both physical and transitional climate risks to their businesses and value chains. As for the need of private sector in the public infrastructure domain, she cited PPP, that are being developed as an option for governments to raise capital and distribute risk. To add to the public sector infrastructure investment, she specified the need of international intervention through multilateral banks or other organizations. She also stressed on the need of risk adjusted return on investments to encourage private sector participation.
The major gap highlighted by her was in policy and regulatory mechanisms, where there is- firstly, a lack of incentives to facilitate resilient investments; and secondly, lack of data availability or lack of interpretation skills for the assessment of physical risk. She went on to recommend climate resilient design standards or taxonomy and mechanisms to better structure financing, including the provision of insurance. She wrapped up her intervention by mentioning underlying factors when looking at financing resilient infrastructure- 1. data availability and data interpretation for decision making, where there is a gap even in public sector adaptation; 2. investment planning, where calculating return on investment needs data to support a cost benefit analysis of alternative solutions so private sector can also get involved in it.

Ms. Sharmila Chavaly began by adding a third bucket to the categorization put forward by Ms Jogesh- private sector as a player in resilient infrastructure provision. She went on to describe how private investment in public infrastructure needs to be supported by public sector in project designing. Additionally, private sector also needs to be supported by international organizations through funding, compensation, capacity building or enabling changes in project design, as investing in resilient infrastructure sees additional costs. She went on to detail out how resilient infrastructure design will need to build in some degree of adaptability which can cope with the future regulatory and policy changes. As mentioned by the panelists before her, she focused on the role of private sector in PPP as a developing concessionaire, with its profit element built in.
Summing up her intervention, she suggested the requirement of disclosures for private sector to be guided by an expected taxonomy. She also highlighted how financial instruments are designed by the requirements of the investors, and proposed the possibility of scaling up use of municipal bonds, which follows this perspective.

As the last panelist, **Mr. Saurabh Bharadwaj**, brought to focus the challenges and solutions for climate resilient infrastructure in the form of financial innovations, robust partnerships and new investment models. Adding to the discussion on recognizing possible risks, he introduced the con-

cept of compounding risks and compounding impacts, that also need to be understood when looking at private sector. He touched upon how integrated and granular risk profiles and models could ensure knowledge creation to help allocate capital to critical infrastructure projects. However, he pointed out a major gap, in terms of lack of granular data and lack of knowledge on climate risk, which needs to be provided by academia or researchers. He highlighted the importance to mainstream climate and disaster resiliency into infrastructure investment decisions by both public and private sectors and how robust PPP models have helped. In his concluding remarks he spoke on risk management and building urban resilience as a team effort with the team including delivery experts, scientists, managers, government and private sector.

These ideas and concepts put forth by the panelists was followed by a short question and answer session. **Mr Rashmi** put forth the question on what would be the nature of the support to policy and regulatory environment, in countries like India and Bangladesh, to promote private sector participation. **Ms Chavaly** responded to the question and spoke about how international organizations like Green Climate Fund have been working with government. She mentioned how this support from GCF was developed to be project specific. She mentioned how the scale of what GCF may be able to do in a country like India is limited because of the size of our needs, and hence strong policy signals are required to guide action.

Mr Rashmi put forth another question in front of the panelists, on how different objectives of vulnerable people and the objective of higher standards for infrastructure, can be managed to ensure that they do not not clash. **Ms. Jogesh** mentioned the perverse incentives that are present for the private sector to invest in infrastructure for the vulnerable. This can be done away with, through clear social community-based tools like blended finance. She went on to highlight the critical aspect from the regulatory perspective, where there is need of clear pricing signals and incentives. She also mentioned how clear taxonomy helps when looking at sustainable and social infrastructure.