



Dialogue Series on

# Challenges and Opportunities In Managing Climate risk & monitoring adaptation for Financial Institutions

Organized by



Under

Indo-German Cooperation project 'Climate Adaptation and Finance in Rural India', GIZ  
with the support of



Implemented by  
**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

(February 2022)

Report on Dialogue – 2 : MFIs and NBFCs

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## 1. Introduction

FWWB ([www.fwwbindia.org](http://www.fwwbindia.org)), under its climate change adaptation and environmental Initiatives, with the support of GIZ under the Indo-German Co-operation Project 'Climate Adaptation and Finance in Rural India (CAFRI), is conducting this third dialogue in the series on **“Challenges and Opportunities in managing climate risk & adaptation”**.

Under the series, the first dialogue was conducted on Jan 11th, 2022 (inaugurated by Sh. P V S Suryakumar, Hon. DMD, NABARD) to understand the impact, adaptation measures, and mitigation strategies by the farm sector, FPOs, Agritechs, and Start-ups. The second dialogue with MFIs and NBFCs was held on 15th of Feb 15th, 2022 which was inaugurated by Dr G R Chintala Chairman NABARD with participation from CEOs from NBFC and MFI Sector on information they need to direct investments, planning, and guidance measures.

This document presents the summary of the discussions that took place in the second dialogue series organized by FWWB on 15 February 2022. This event was organized as a virtual conference and featured addresses and presentations by experts from the microfinance and NBFC sector, as



well as a panel discussion. The following table presents the schedule of the event.

## Program Schedule:

S.No.	Time	Session	Details/Person	Lead
	10:00 AM- 10:05 AM	Welcome	Greetings and welcome	Mr S S Bhat, <b>CEO, FWWB</b>
<b>1</b>	10:05 AM - 10:12 AM	Session Opening	Introduction & Welcome address	Ms Jayshree Vyas – <b>Chair, FWWB and MD SEWA Bank</b>
<b>2</b>	10:12 AM - 10:20 AM	Special address	Special address	Mrs. Christiane Hieronymus, <b>Head of Economic Cooperation &amp; Development, German Embassy</b>
<b>3</b>	<b>10:20 AM - 10:35 AM</b>	<b>Inauguration</b>	<b>Inaugural Address</b>	<b>Dr G R Chintala, Chairman - NABARD</b>
<b>4</b>	10:35 AM - 10:40 AM	Context	Presentation on context	Mr. Atul
<b>5</b>	10:40 AM - 11:02 AM	Opening Remarks	Contextual address from the Sector Leaders	Dr Alok Misra, <b>CEO and Director- MFIN</b>
				Mr Mahesh Thakkar, <b>Director General, FIDC</b>
				Dr P Satish <b>ED, Sa Dhan</b>
<b>6</b>	11:02 AM – 11:10 AM	Investor's Perspective	Investor view	Ms Simmi Sareen, <b>Director, Unitus Capital</b>
<b>7</b>	11:10 AM - 11:20 AM	Theme Context set up	Presentation from the rating perspective	Mr Sanjay Sinha, <b>Founder M-CRIL</b>
<b>8</b>	11:20 AM – 11:30 AM		Setting the Climate Change Context for Rural Livelihoods	Mr C S R Murthy, <b>CGM, FSDD, NABARD</b>
<b>9</b>	11:30 AM – 01:00 PM	Panel Discussion and Q n A	Mr Sridhar Easwaran, <b>Institution &amp; Capacity Building, Samunnati</b>	<b>Moderator:</b> <b>Mr Royston Braganza, CEO - Grameen Capital India</b>
			Mr Avishek Gupta <b>MD and CEO, Caspian Debt</b>	
			Mr Dibyajyoti Pattnaik, <b>MD, Annapurna Microfinance</b>	
			Mr. Jayant Prasad, <b>Co-founder &amp; Director - Ckers Finance</b>	
			Dr Kshama Fernandes <b>MD and CEO, Northern Arc Capital</b>	
Mr Vivek Tiwari <b>MD, CEO&amp; CIO . Satya Microcapital</b>				
<b>10</b>	01:00 PM - 01:05 PM	Vote of Thanks	Concluding Remarks	Mr S S Bhat, <b>CEO - FWWB</b>

## The Dialogue Proceedings:

### Inauguration

**Shri S S Bhat, Chief Executive Officer, FWWB** in his welcome address, stated that climate change poses many challenges for the policy makers, particularly regarding how to mitigate its worst impacts on lives and livelihoods and drive adaptation through appropriate practices, innovative business models and financing models. Addressing the challenge is significant as the gap between impact of climate risk and adaptation to it has been widening. He also shared that the ill-effects of climate change will be most felt by the vulnerable communities. It is high time to recognize the severity of climate risk, raise awareness among the stakeholders in the financial sector and discuss strategies and tools for mitigation and adaptation. He further explained that mobilizing finance, sensitizing Financial Institutions (FIs) and mainstreaming climate adaptation for the benefit of the most vulnerable sections are key to meet the exponentially rising challenge of climate risk.

Welcoming the chief guest, **Shri G R Chintala, Chairman, NABARD** and other dignitaries from NABARD, Shri Bhat stated that NABARD has played a leading role in driving response against climate risk in India. Furthermore, welcoming **Mrs Christiane Hieronymus, Head of Economic and Development Cooperation, German Embassy**, he said that the dialogues like these, which have been initiated under the Indo-German cooperation project “Climate Adoption and Finance in Rural India”, are the need of the hour. He also welcomed all the sector experts and industry leaders from MFIs and NBFCs for their participation in the event and invited **Ms Jayashree Vyas**, an inspiring leader and a great visionary, for her opening address.

**Ms Jayashree Vyas, Chairperson of FWWB and MD of SEWA Bank**, laid stress on the impacts of climate change on India’s economy. She said that NBFCs and MFIs could not remain unaffected by the burning concern and are under pressure to act on the earliest to mitigate the adverse effects of climate change and align with the global sustainability agenda. However, many of these institutions are in an initial phase only in introducing climate change in their risk management framework. She also opined that in a competitive economy, designing sustainable products is a commercial necessity and climate risks need to be built into capital allocation decisions, as well as loan appraisals, monitoring and reporting. She said that climate risks seep into every commercial contract. She further added that it is important for FIs to have a “**gender**” lens while factoring in climate risks in their decision-making framework.

**Mrs. Christiane Hieronymus, Head of Economic and Development Cooperation, German Embassy**, in her opening remarks opined that climate risks should be seen as financial risk as well as developmental risk and a driver of poverty. The losses on account of climate risk events have been huge for the world as well as for India. The agricultural sector is particularly affected by climate risks. Smallholder farmers who constitute 85% of India’s farmers are at severe risk and investments in climate-resilient agriculture are needed. Traditionally financial institutions have perceived climate-smart agricultural projects as carrying the higher risk and have been reluctant



to provide funds on account of uncertainty in agricultural yield. It is time now for financial institutions including MFIs and NBFCs to come forward and provide access to much-needed capital to their clients for green projects. She also said that this event was timely and a much-needed step towards bringing these issues to the forefront. She further strengthened her speech by adding the fact that, the estimated projections for climate neutrality in India to reach is by 2070, and in Germany, it is projected to be by 2045. She also laid stress on GIZ initiating in mitigating the climate cause is to the tune of 12 Billion Euros.



Shri SS Bhat, on behalf of the entire participants, conveyed his sincere gratitude to Mrs Christiane Hieronymus, and the German Government’s support for initiating dialogue on climate adaptation and finance in rural India. He then welcomed **the chief guest Dr. G R Chintala, Chairman, NABARD**, and invited him to formally inaugurate the dialogue through his address.

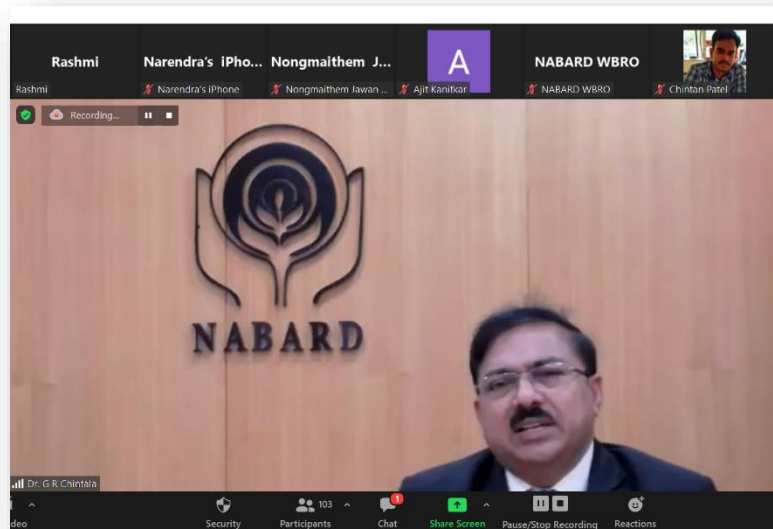
### 1.1 Inaugural Address

**Dr. G R Chintala, Hon. Chairman NABARD**, in his focused address on climate change and its impact, laid stress on various factors affecting the climate and agreed to the fact that the rise in global temperature is a fact and none of us is immune to it. Occurrences such as cyclones in the Arabian Sea coast which destroy mango crops in Konkan which were rare earlier have become much more frequent. Similarly, climate change has resulted in rivers like the Brahmaputra altering their course, which has damaged infrastructure, like Agri-warehouses on their banks. It is the agricultural sector that will bear the greatest brunt of climate change. The exposure of the financial sector to agriculture through banks, NBFCs, and MFIs is very significant, and therefore it is imperative for financial institutions to adapt to it.

Shri Chintala in his address shared that the term “Green – Swan” has been coined in the context of climate risks. Although inspired from the term “Black – Swan”, which refers to an unexpected calamity causing losses, "green swans" may arise in the form of losses on investments that have been made on fossil-fuel driven technologies, once these are abandoned in favor of green technologies.

He further stated that climate change posed varied risks – physical risks, transition risks, and liability risks. Physical risks arise from the potential loss of physical assets from climate change.

Transition risks arise from changes in technology and processes that may be required because of climate change. He also added that there is a dire need to shift from traditional financing to financing towards carbon-neutral financing. These changes may impose a cost. Optimal technologies which are not costly to adopt will be important in minimizing transition risks. For example, the water intensity of rice farming can be reduced by adopting the System of Rice Intensification (SRI).



**Shri G R Chintala,  
Hon. Chairman NABARD,**

Liability risks arise from the increasing cost of insurance as ill effects of climate change manifest more and more. The cost of asset insurance such as livestock or poultry, for the low income, is even now perceived to be high.

Therefore, part of the challenge for all the stakeholders involved is to ensure that climate risk adaptation is orderly. Financial Institutions will have to lay greater stress on funding climate-smart projects keeping in view these realities.

Dr. Chintala also laid stress on NABARD's experience as an implementing agency for various green finance projects, that provide subsidies and grants. At the same time, he also felt the need of grant-based projects for raising awareness. As large-scale adoption would require financial institutions including banks, NBFCs, and MFIs to take these as mainstream banking projects., NABARD, therefore, is in the process of designing green financing products to fulfill this need. It is also important to raise the awareness levels of clients of Financial Institutions so that they make climate-appropriate choices – for instance, electric bikes over conventional two-wheelers.

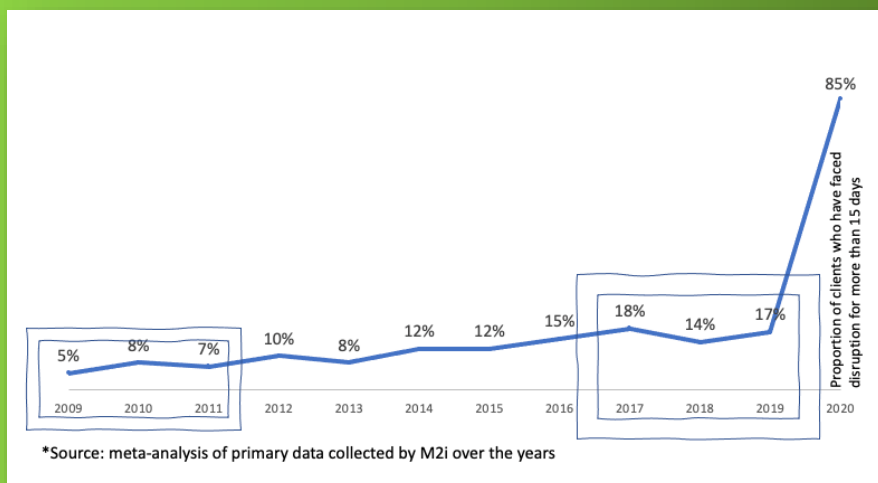
Dr. Chintala identified some important steps that are required to promote green finance which involved:

- Well researched categorical rules and due diligence standards for green financing. The acceptable level of burden on the people in terms of asset creation, insurance, and loan liability should be clearly identified.
- There should be engagement with clients to make them aware of the necessity of climate-appropriate products and technology in order to safeguard future generations.

- Metric that shows how our exposure to climate risk is changing over time needs to be developed.
- Integrating climate risks in institutional governance so that the board of directors is cognizant of the climate risk-related trade-offs in their investment and growth decisions.
- Scenario analysis as a tool for Financial Institutions to test the resilience of the firms they provide funding to.

Shri Chintala concluded with the hope that while the global temperature will rise, financial institutions, as well as their clients, will gear up for the challenge and this dialogue would surely contribute in mitigating the concern.

Shri Atul from M2i, presented the collected primary data of microfinance borrowers since 2008, as part of its various engagements such as loan portfolio audits, code of conduct assessments, market research etc. It has collected data on the number of days the borrower and her family had no or little income over the past one year, and a meta-analysis of this indicator and its historical evolution is quite interesting as can be seen in the illustration below.



The proportion of clients who say that they have faced disruptions in their occupation for more than 15 days has gradually been creeping up, except for 2020 when it shot up several folds, because of the COVID pandemic. The reasons cited for disruptions by the borrowers include floods, cyclones, heatwaves, extreme weather, apart from health issues, law and order, administrative problems, accidents. This meta-analysis suggests that climate risks will be an increasingly significant challenge for MFIs in the years ahead.



## 2. Views from MFIs, NBFCs, and Investors

The ill effects of climate change manifest in many unexpected weather events including unseasonal heavy rains, monsoon onset, and withdrawal, cyclonic storms, heatwave conditions, urban floods, etc. These impact the livelihoods of people because under the influence of such events there are losses of crops and also disruptions in the daily work of many people in the low-income segment.

Given that this constitutes an important client segment for MFIs and NBFCs alike, certain questions arise:

- Do MFIs/NBFCs have a system to capture information related to exposure of clients in climate sensitive activities or businesses?
- How often is this information obtained and what kind of decisions are based on this information?
- What are the risk management responses of the MFI/NBFCs to deal with this situation?
- Have the MFIs/NBFCs noticed adoption of climate sensitive technologies among their clients?
- In case an application comes for financing in such activities, how favorably these are taken up? Are these considered riskier or are looked at favorably?
- In case MFIs/NBFCs come up with such products, what is the risk appetite of the equity investors and lenders to provide funding?
- Is there any mechanism or facility which would bear the cost of product development and additional risks being undertaken by the MFIs/NBFCs.
- Is increasing funding for climate-resilient technologies through the MFIs/NBFCs in the agenda of the Equity investors? If yes, how are they tracking or catalyzing this?
- Are there any risk sharing facilities that would encourage MFIs/NBFCs to develop products to finance climate-resilient technologies?

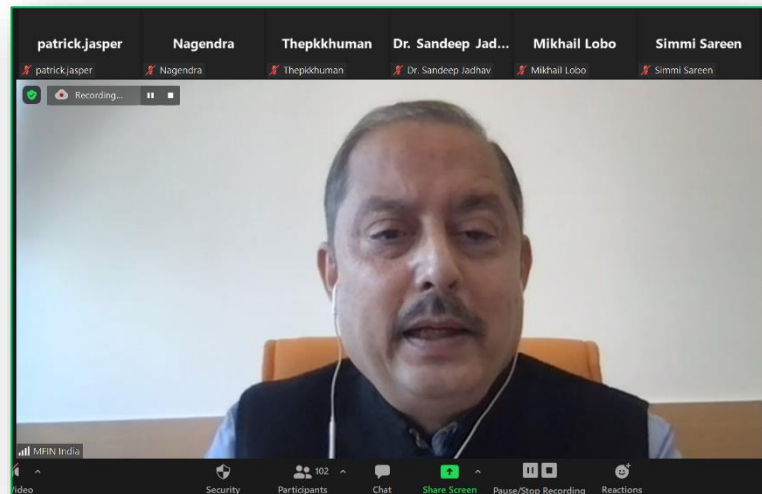
This part of the virtual conference consisted of discussions on what MFIs and NBFCs can do to help their clients adapt to climate change and whether there is an opportunity to benefit from investor interest in this area. It included four talks by industry leaders.

## Contextual Address:

**Dr Alok Misra, CEO and Director, MFIN**  
**Mr Mahesh Thakkar, Director General, FIDC**  
**Dr P Satish, ED, Sa Dhan**

**Dr. Alok Misra, CEO, and Director, MFIN,** in his address, stated that anthropogenic causes (human-induced factors) are primarily responsible for climate change. Even if all the nations of the world are successful in meeting their voluntarily committed targets on carbon emission, it is still likely that global temperatures will rise by 2.4 Celsius by 2050. This will cause a substantial adverse impact. The important aspects of tackling climate change include mitigation, adaptation as well as sustainable development. The livelihoods of the vulnerable segments need to be climate-proofed. An intervention that MFIN is undertaking with the support of GIZ and ADB, in partnership with Cholamandalam insurance is the development of a Nat-Cat (Natural Catastrophe) insurance product. This product will provide for the instalment liabilities of the insured in case there are unexpected weather events that cause high losses. The product is being piloted in Odisha with the help of MFIs such as Annapurna Finance and an application has been filed with the IRDA for its regulatory approval. The product carries predefined natural hazard risks at the taluka level, the materialization of which triggers the insurance pay-out.

Dr Misra also shared that there is little scope for MFIs because of the existing regulations, but as RBI is moving towards a principles-based regulatory regime that would be agnostic of the institutional form, MFIs may be able to play a greater role. The time has come when they need to evolve their operations from the **“do no harm” paradigm to a “do good” paradigm**. He deliberated on several steps that MFIs can take to further the cause of climate adaptation.



**Dr Alok Misra,  
CEO and Director. MFIN**

- MFIs can use their centre or group meetings to raise awareness among their clients on climate issues. MFIN is developing a training module for clients and climate issues will form a part of it.
- MFIs can learn from examples in neighbouring Bangladesh where some financial institutions give preferential interest rates to those clients who build in water-harvesting structures in their homes. Similarly, Dr. Misra spoke about his association with an agricultural finance project being implemented by Palli Karma Sahayak Foundation (PKSF) – Bangladesh, where a checklist is obtained from borrowers with

parameters on how climate is responsible for their agricultural practices when loans are first sanctioned. It is expected that when they approach the institution for a subsequent loan, they would have improved their practices which will result in more ticks against the checklist. MFIs in India can also adopt a similar practice.

- Dr Misra also spoke about working on Energy Efficiency (EE) project with micro-enterprises in Faridabad, where small changes made by these firms with investments of Rs 70,000 – Rs 100,000, resulted in the entire investment being recovered in less than a year through gains in energy efficiency. MFIs may also explore funding such projects given the fact that the evolving regulations will give them greater flexibility to undertake individual lending.

Dr Misra concluded his address by calling upon all the stakeholders to make **climate change initiatives part of the mainstream agenda**.

**Shri Mahesh Thakkar, Director General, FIDC**, in his address opined that NBFCs are mere financiers and not the end-users of assets. Hence their operations do not directly lead to pollution. He further said that NBFCs have moved with the times and have provided their funding with a sense of responsibility. They have been the pioneers in funding e-rickshaws and electric buses. Going forward they need to be cognizant that they continue to finance new less polluting



**Shri Mahesh Thakkar,  
Director General, FIDC.**

technologies and don't fund old or obsolete vehicles. He felt that innovative ways of reducing pollution should be encouraged and priority sector classification of such loans will encourage environmentally conscious lending. Further, he said that a **qualified climate auditor should assess big projects before funding for their climate impact, and the regulatory agencies and**

**the government must insist on this.**

Shri Thakkar also added that the digitization of finance has evolved very rapidly. A lot of operational procedures and transactions can now be undertaken digitally. This includes things such as transfer of funds, buying/selling, collection, reporting, and KYC verification. This reduces the need to travel and also serves as a check on fuel consumption. He felt that the **future is “phygital”, an optimal mix of physical and digital** and this can not only revolutionize finance but

also contribute to reducing pollution associated with travel required for purely physical operations.

Shri Mahesh Thakkar made the point that climate risks can also materialize in unanticipated ways. For example, a portfolio of loans comprising of assets that are in the future prohibited or banned because of climate concerns could be a risky proposition. Hence Shri Thakkar suggested that NBFCs should develop a deep understanding of not only financial regulations but also those concerning the Environment, Auto-sector, infra-sector, farming, mining rules and new developments including scrappage policy for old vehicles. He suggested that before funding of large projects the government and the RBI should mandate for banks and NBFCs, climate risk audits that are performed by qualified scientists.

**Shri P Satish, Executive Director, Sa Dhan**, placed his remarks that while clients of MFIs may not be aware of the climate targets that nations have set for themselves, they are aware of the effects of changing climate on their livelihoods. At the same time, at present, most of them are not able to link it with problems of climate change. He stated that MFIs had to go a fair distance in order to factor in climate change issues in their decision-making. There is very little financing from MFIs for climate-smart agriculture projects. They need to contend with decisions regarding what kind of activities they will finance and can be modified to some extent to address adaptation, mitigation, and reduction in carbon emission. For example, MFIs can fund assets powered by renewable energy which can reduce the dependence of their clients on fossil fuels in their enterprise-related activities. Such assets include solar-powered rice hullers, solar-powered cold storage for the farm sector and solar-powered sewing machines, solar-powered looms, “agarbatti” making machines, etc in the non-farm sector.



Livelihoods in India are constrained by a lack of access to reliable power. Distributed Renewable Energy (DRE) solutions, such as solar-powered solutions, can help in significantly enhancing their productivity and income. Financing of productive assets powered by solar energy is a good fit for MFIs because one of the core values of microfinance is to enable the poor to improve their quality of life. Productive assets backed by solar power have a definite potential to increase the productivity and incomes of economically weak microentrepreneurs. It is also an opportunity for MFIs to diversify their products as well as operations. At the same time, the quality, reliability, and serviceability of such assets need to be assured.

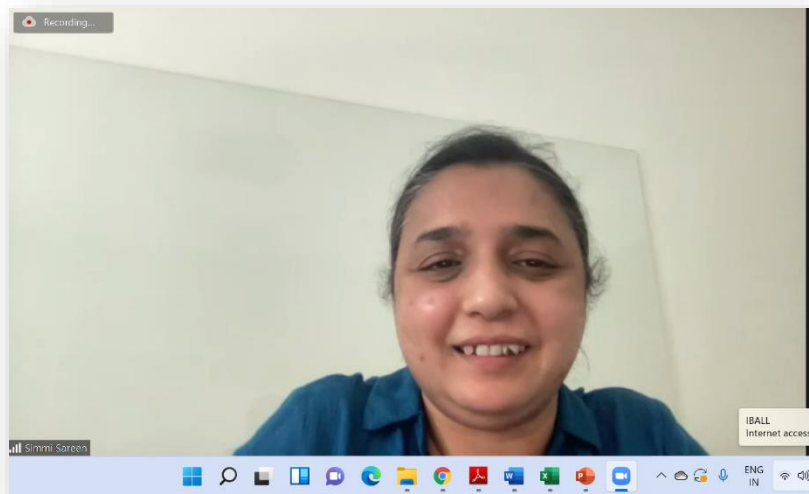
Such products need to be mainstreamed and hand-holding of the microfinance sector is required for wide adoption. Sa-Dhan has taken steps in this direction, and in association with SELCO Foundation, it is trying to popularize these products with the help of several MFIs in Odisha, Bihar, and Manipur. The initial results of these pilots have been reasonably good. This can be adopted for wider financing by not only MFIs but also NBFCs. Shri Satish mentioned that affordable housing was another area where renewables can be promoted not only for the purpose of electricity and heating but also for natural lighting, water harvesting, and safe sanitation – all of which play a role in reducing GHG emissions.

Shri Satish also mentioned that with the help of GIZ and climate bonds initiative, Sa-Dhan has commenced research on agricultural activities where interventions are required to reduce carbon footprint and MFIs can play a role in catalyzing such interventions. He concluded by stating that the **microfinance and NBFC sectors require “a good amount of finance and refinance” to popularize funding of renewable energy assets.**

### 3. Investor’s Perspective:

**Ms Simmi Sareen, Director, Unitus Capital**

Ms Simmi Sareen, Director, Unitus Capital started her address by sharing that while climate change with its adverse effects creates a portfolio risk management imperative for MFIs and NBFCs, climate-smart capital should also be thought of, while raising funds. She said that 70 large institutional investors with over US\$ 10 trillion in assets under management have formed a net-zero asset owner alliance which has committed to net zero portfolios by 2050. Similarly, a **net-zero insurance alliance** brings together 21



**Ms Simmi Sareen,  
Director, Unitus Capital**

leading insurers and reinsurers who have also committed to net-zero portfolios by 2050. This presents new options of capital for MFIs and NBFCs. The volume of green bonds issued in India has been steadily increasing over the past few years. Financial entities account for a significant proportion of such issuance. Also, **ESG funds in India now have US\$ 1.7 billion** in assets under management, which is a 40% increase over the past year. Ms Sareen emphasized that this



represents an opportunity for NBFCs and MFIs because investors would be willing to channel funds into sustainable projects through them. She cited a study that showed that **US\$ 1.01 trillion may be invested in climate positive projects in India by 2030**, with investments apportioned to resilient cities (18.8%), sustainable food (27.7%), renewable energy (19.8%), and electric transportation (17.8%) among others.

## 4. Views from a Rating Agency and an Apex Bank

### Presentations

**Mr. Sanjay Sinha, Founder, M-CRIL**

**Mr. Surendra Babu, General Manager, NABARD**

**Shri Sanjay Sinha, Founder, M-CRIL** emphasized that financial rating is about the creditworthiness of organizations and the rating horizon is one to three years. The adverse impacts of climate change have been gradually creeping up. So, while rating agencies can attach value to climate-friendly lending, it will have a limited impact on the performance of the loan portfolio. Mr. Sinha felt that at the macro level there is wide acknowledgment that climate change is affecting the lives of the poor. Still, specifying specific impacts on the lives and livelihoods of poor people was important if inclusive finance had to be used for adaptation and mitigation. Inclusive financial service providers such as MFIs can design products that support the coping strategies of the poor and if possible, enable the leveraging of opportunities emerging from the development of climate-smart technologies. Shri Sinha outlined some specific manifestations of the ill-effects of climate change on the poor as under:

- Long term decline in agricultural productivity due to low or high rainfall, soil erosion related to flooding and high winds, damages caused by cyclones to lives and assets of the poor
- Migration to urban areas and safer shelters

Financial institutions can provide loans specifically to enable the poor people to cope with climate-related issues, for instance, for household solar energy devices, drip irrigation devices, land development projects to prevent soil erosion, restoration, and rebuilding of dwellings, recovery of livestock, resettlement, or rehabilitation of migrant families. Shri Sinha further said that ultimately disaster response is a humanitarian problem dependent on relief efforts from governments but financial institutions can play a complementary role. He concluded his presentation by stating that it was time to start planning for the future in conjunction with insurance companies on the one hand and with humanitarian agencies on the other – as the pattern of portfolios evolves towards climate-smart lending it will inevitably affect the creditworthiness of financial institutions.

**Shri Surendra Babu, General Manager, NABARD**, reflected that **India is ranked as 7<sup>th</sup> most vulnerable country to climate change impacts according to the Global Climate Risk Index of**

**2021.** There is a high vulnerability of rural areas which are characterized by geographical remoteness, high dependence on natural resources, and high exposure to frequent climate-induced natural disasters. This has a negative effect on agriculture, food production, and rural livelihoods. There is a risk that yields of major crops could decline by up to 25%. Climate change causes poverty, resource degradation, environmental deterioration, and social unrest. He further stated that climate change disrupts the operations of Financial Institutions through disruption in branch networks, the internet, information technology systems, etc. These events impair loan repayment of clients which in turn affects the performance of NBFCs and MFIs.

He further shared that NABARD's initiatives towards climate resilience building sustainable development and management of natural resources as well as climate change projects. The former includes Participatory Watershed Development, Tribal Development Projects for sustainable livelihoods, Sustainable farming system (SRI, SSI, SWI) through technology transfer funds. Climate change projects include channelizing climate action funds (national and international) such as National Adaptation Fund for Climate Change (NAFCC), Green Climate Fund (GCF), Adaptation Fund (AF), and Climate Change Fund (CCF) as well as establishing the Centre for Climate Change at BIRD, Lucknow. Stating that microfinance is an essential enabler for building climate resilience, he said that NABARD has been supporting the sector through its SHG-Bank linkage program, Joint Liability Groups Scheme, Livelihoods development program, and Microenterprises development program. He further said that NABARD has also created an institutional support system with the promotion of organizations such as:

- **NABKISAN Finance Ltd-** Provides Micro Finance loans to SHGs, JLGs, other groups, individuals and their federations, FPOs, etc with repayment of up to 7 years.
- **Nabsamruddhi Finance Ltd** - Focus on green financing viz Solar, WASH, etc
- **Nabsanrakshan Trustee Private Ltd** - For bank financing to FPOs, a Credit Guarantee Fund of Rs. 1,000 Cr. Has been set up.

He further outlined some climate-resilient business models for MFIs and NBFCs. These included:

- Farming system involving climate-resilient crops like millets, indigenous tuber crops, drought/flood-tolerant crops, etc.
- Integrated farming systems such as Mangrove Fish Farming System, Rice cum Fish Farming, etc.
- Low input farming systems such as System of Rice Intensification (SRI), Sustainable Sugarcane Initiative (SSI), etc.
- Climate-resilient cattle sheds and fodder development initiatives
- Dairy units for native cattle breeds
- Protected/Polyhouse cultivation and precision farming systems
- Micro-irrigation facilities coupled with the use of solar energy
- Crop Residue Management as a potential source of waste to wealth for farmers

Concluding his presentation, Shri Surendra Babu made some suggestions for MFIs and NBFCs in order to mitigate climate change risks listed as below:

- **Development of Green Products** for Financing.
- **Training of staff on incorporating climate-related and environmental risks in their business strategies, governance, and risk management frameworks.**
- The screening of clients and their loan applications for climate risks exposure should be carried out by MFIs/NBFCs or their partner agency.
- **Dissemination of climate vulnerability reduction information** to the clients of FIs i.e., farmers/FPOs, SHGs, JLGs, etc.
- **Development of climate-related insurance products** for reducing climate vulnerability of the clients.

## 5. Panel Discussion

The panelists in this session discuss the role which MFIs and other NBFCs can have in climate adaptation and resilience.

**Shri Avishek Gupta, MD and CEO, Caspian Debt** in his address, shared that Caspian debt is active in the climate finance space and has financed 35 organizations who are working with climate-friendly technological solutions and are helping reduce the impact of climate change. As an impact investor, Caspian Debt can use financing tools to promote adaptation and mitigation of climate risk, but given the complexity of the task, this will require multiple stakeholders to come together and put their efforts in the right direction. On its part, Caspian debt has been making several efforts to collate the initiatives of various stakeholders and create awareness about climate adaptation and mitigation tools and technologies. Caspian Debt also obtains feedback from its portfolio companies about the perceived impact of climate change on their clients and their businesses and takes several steps to create awareness and build collaborations.

### Panel Discussion: Role that MFIs and NBFCs can play in mitigating Climate risk

#### Moderator:

- **Mr Royston Braganza, CEO, Grameen Capital India**

#### Panelists

- **Mr Sridhar Easwaran, Institution & Capacity Building, Samunnati**
- **Mr Avishek Gupta, MD and CEO, Caspian Debt**
- **Mr Dibyajyoti Pattnaik, MD, Annapurna Microfinance**
- **Mr. Jayant Prasad, Co-founder & Director - Ckers Finance**
- **Dr Kshama Fernandes, MD and CEO, Northern Arc Capital**
- **Mr Vivek Tiwari, MD, CEO& CIO, Satya Microcapital**

**Shri Dibyajyoti Pattnaik, MD, Annapurna Microfinance**, was of the opinion that the threats of climate change are no longer in the domain of theory. The impact of climate change has already started becoming visible on the clients of Annapurna and their businesses. Some time ago, the organization did an assessment of the climate risks facing their clients and whether the products offered by Annapurna are tuned to address these risks and found out that products offered by Annapurna did not address any of the climate related risks. The organization then started working to bring alignment of its products with the climate-related risks. It mined publicly available data on climate patterns and mapped this to their clients to build a predictive model to assess the impact of climate events on the portfolio of the organization. Annapurna has also started incorporating aspects of climate risk and resilience in its product offerings.

**Shri Jayant Prasad, Co-founder & Director - Ckers Finance**, shared his perspective and shared that Microfinance Institutions are in the domain of providing short-term financing for income generation purposes among low-income clients. There is an opportunity for the MFIs to provide finance for economically viable products such as E Vehicles, solar home lighting solutions, solar pumps, solar installations, etc. However, he was of the opinion that in order to tap the

opportunities in this space the MFIs would require to develop institutional capacity to offer individual loans. An essential feature of climate-friendly products is that this requires higher upfront investments which pay off with less recurring expenses in the future. There is, therefore, a case for offering appropriate financial products for financing assets that are economically viable. He also talked about bringing innovations in financial products such as 'Rent to Own' to encourage adaptation. The MFIs through their product offerings can help build resilience in the absence of specialized risk management products for the underprivileged segments.

**Ms. Kshama Fernandes, MD, and CEO, Northern Arc Capital** very clearly pointed out that some of the important financial products which are required for hedging climate risk are yet not available in India for small farmers. She suggested that weather risk derivatives need to be made available to the farmers and other stakeholders who could potentially be impacted by climate risk. Additionally, she emphasized the need to change the features of weather insurance products and their distribution mechanisms, so that they meet the requirements of small farm holders as well. She also felt that MFIs and other NBFCs could play a key role in influencing behavior at the grassroots as they are in direct contact with the borrowers and have a great influence on them.

**Shri Sridhar Easwaran, Institution & Capacity Building, Samunnati**, shared his experience and said that during his interaction with farmer collectives for the past few years he has observed responsiveness and traction building towards climate adaptation and mitigation measures among the farmers. There is a high degree of willingness among the farmer collectives to adopt climate-resilient technologies. Samunnati, through its interventions, has explored offering insurance solutions for the income protection of the farmers. The organization has also been exploring collaborations with various stakeholders for making customized financial solutions available to a large number of farmers.

**Shri Vivek Tiwari, MD, CEO& CIO, Satya Microcapital** shared that while the resilience of the microfinance clients to deal with risks of various types has been well established and appreciated, there is a definite need for making available appropriate insurance products for the microfinance clients, do deal with climate risks. Additionally, given the deep and wide outreach of the Microfinance Institutions, they can be used to spread awareness about climate adaptation and mitigation technologies and practices. He also emphasized the need to make appropriate changes in the loan products of the MFIs to help clients deal with the risks being faced due to climate risk. MFIs on their part can reduce the climate impact by incorporating technology in their operations and by creating awareness among their clientele about climate risk and its mitigation. MFIs can also offer financial products at differential rates to encourage farmers to adopt climate-friendly practices.



**Shri Royston Braganza**, summarizing the panel discussion, emphasized the need to have paradigm-shifting policy-level interventions to open floodgates of capital for MFIs for climate adaptation and mitigation. He also said that there is a need for product innovations and collaborations among various stakeholders for ensuring the required flow of capital.



**Panel discussion being moderated by Royston Braganza, CEO – Grameen Capital**

**Mr. Royston Braganza on Green Bonds:**

Shri Royston Braganza elaborated upon green bonds and the social stock exchange. It has been determined that interventions aimed at mitigating climate risks will run into trillions of dollars. Globally there are initiatives to raise funds in large magnitude but this takes time. Micro Bonds called SDG impact bonds, that Grameen Impact has issued, are for a smaller sum such as one million dollars but these take less time for issuance. So far, seven SDG impact bonds have been issued. Since the issuance time is less, several micro bonds can be issued over the course of a year. Grameen Capital India has been advocating with the ministry of corporate affairs to list these bonds under CSR rules. Similarly, it is hoped that these bonds will also be listed under priority sector lending rules.

Grameen has also been advocating with the social stock exchange drafting committee to list SDG impact bonds there. Such listing can help in fundraising particularly if financial institutions can relate the utilization of such funds to desirable climate outcomes. This will motivate climate-smart investors to subscribe to such bonds and drive down their coupon rates so that the cost of funds for the lending institutions goes down. This can potentially create an ecosystem that can open the floodgates of climate smart funds to flow to MFIs and NBFCs.

## 6. Addressing the Audience Questions:

**Whether MFIs and NBFCs are looking at long-term climate data, and accessing their business implications, if so, what are these parameters, FIs are looking at.**

Shri Dibyajyoti Pattnaik informed that Annapurna Financial Private Limited (AFPL) has analyzed rainfall data, wind speed data, seasonality of weather, production patterns of different crops, for their changing patterns. This data has been used to design the Nat-Cat insurance product that is being piloted with the help of ADB and MFIN.

**As the e-vehicles/climate-smart equipment are costly, how is the receptivity of customers or what support is required to enhance the percolation of such products?**

Shri Jayant Prasad said that while the upfront investment in climate-smart equipment such as e-vehicles are larger, the cost of operating them is lower as compared to conventional equipment. This makes many of these equipment economically viable, and financiers look at funding viable projects only. Potential customers at times, keep waiting for subsidy or grant support and keep relying on conventional equipment and ultimately incurring a cost on account of more expensive operations. He further felt that arranging finance for climate-smart equipment is a higher order challenge. The more basic issues are awareness that can help in demand generation as well as development of a suitable ecosystem of support services such as installation and servicing of climate smart equipment.

**What sort of financial products, MFIs and NBFCs could develop for addressing the climate risk.**

Shri Vivek Tiwari said that NBFCs and MFIs can encourage their clients to undertake climate smart agriculture that require less water. He further said that net-zero agriculture that does not depend on chemical pesticides can be encouraged, and MFIs are suitable entities that can provide funding for this.

**What sort of support is required from NABARD/SIDBI/Regulators?**

Shri Vivek Tiwari felt that availability of guarantee funds for the sector can spur lending for climate conscious agriculture by MFIs and NBFCs. Shri Avishek Gupta and Shri Jayant Prasad felt that simple standard setting by regulators and simple indicators that measure the impact of climate change on lives and livelihoods and how interventions are impacting these were required. Ms Kshama Fernandez and Shri Dibyajyoti Pattnaik were of the opinion that there should be awareness generation at a large scale.

**On the question of experience of MFIs and NBFCs providing finance for climate smart technology,** Dr Kshama Fernandez answered that there are not too many examples of such financing. But she added that MFIs have the last mile connect and they can go to the root of the problems that clients face. In particular MFIs and NBFCs can play a great role in creating awareness regarding climate issues among their clients.

## 7. Conclusion

In his closing remarks, **Dr. Shailendra Dwivedi, Senior Advisor, GIZ India** expressed gratification that the dialogue had brought forth tangible action points and solutions. He said that moving forward, the issue of standards for climate-Smart lending would need to be addressed and GIZ will be facilitating the development of such standards with support from all stakeholders. He further added that GIZ is developing capacity-building online modules for climate awareness. He concluded his address by adding that GIZ will engage with regulators to address some of the policy issues that have emerged during the dialogue.

Shri Bhat concluded the event by thanking all the participants for their valuable contribution to the dialogue.

### The concept of Climate Proofing Livelihoods

The clients of MFIs and NBFCs remain vulnerable to climate risks. If these are not adequately addressed, a materialization of climate risks will start affecting the viability of these institutions. MFIs and NBFCs can play a role in enabling their clients to develop resilience against climate risks.

- Insurance – Efforts should be made to develop appropriate insurance products that can help clients overcome unexpected economic shocks. The “Nat-Cat” insurance product that is being piloted by AFPL is an example of such a product. More pilots followed by scale-up can lead to effective insurance options for clients of MFIs and NBFCs.
- MFIs and NBFCs can play a significant role in the dissemination of information on climate vulnerability and risk reduction strategies among their clients.
- MFIs and NBFCs that have a substantial clientele involved in agricultural activities should promote farming systems involving climate-resilient crops like millets, indigenous tuber crops, drought/flood-tolerant crops, etc. Integrated farming systems such as Mangrove Fish Farming System, Rice cum Fish Farming and low input farming systems such as System of Rice Intensification (SRI), Sustainable Sugarcane Initiative (SSI), etc, can also be promoted.
- Similarly MFIs and NBFCs can evolve models to encourage micro-irrigation facilities coupled with the use of solar energy. They can also fund crop residue management as a potential source of waste to wealth for farmers. They can enter into partnerships with organizations like Selco Foundation and Siestema.bio to facilitate and popularize these interventions.
- Many new-age agri-tech companies have evolved innovative solutions that address problems such as water scarcity and soil degradation. While these can materially improve agriculture practices as well as farm incomes, they require an additional cost to be incurred on the part of the farmer. MFIs and NBFCs have the necessary competence to evaluate whether financing such inputs is viable. If they can provide financing even as pilot or demonstration projects, it can have a multiplier impact as gains from the use of these technologies become visible.

## 8. Expert's Voice:

### Caspian Debt's approach towards climate finance

- **Avishek Gupta (Managing Director & CEO, Caspian Debt)**

Whenever we talk about climate finance, the image that we are reminded of is large-scale solar plants or large windmills. However, for meaningful and deep climate-positive impact, climate financing has to reach out to a wider variety of technologies and use cases. Question is, where are the opportunities that all the large capital providers are looking to finance?

A few years ago, we realized that impact investors, like us, have to play a role in creating these varied opportunities for capital providers to finance. Else, the large capital providers will be forced to continue financing solar and wind power which is necessary but not enough for deep climate adaptation.

We realized that given the urgency of large-scale climate adaptation required, the entire process of creating the opportunities for large scale capital providers consists of three (somewhat) parallel steps: identifying investable opportunities that create climate-positive impact, financing them to up to a stage where they have achieved the scale that is suitable for large scale capital providers and lastly, creates financing structures that enable different types of financiers come in at the right stage in the lifecycle.

Over the past few years, we have supported a wide variety of companies in the space and tried to understand how climate financing can be practically scaled beyond the well-understood large-scale solar and wind projects. Today, each of the opportunities that we have supported is small - distributed micro-cold storages, pumps, electric vehicles, or biodegradable replacements for chemicals, organic agriculture but each of them has massive growth potential. In fact, in the last few years that we have financed them, their scale has grown several-fold. We have funded more than 30 companies working on different areas -from clean energy generation to energy savings, to replacement of the use of chemical/fossil fuel-based with clean sources, to regenerative agriculture. We believe that all these areas need financing to enable a deep and meaningful climate transition. Large-scale climate transition will be possible only if the adoption of all these different technologies is accelerated.

We are now actively working on creating financing structures that make it easier for “financiers” (commercial capital providers, impact investors as well as philanthropic capital providers) to accelerate climate financing. While in cases of proven operating models, there is a play for more



**Avishek Gupta (Managing Director & CEO, Caspian Debt)**

commercial financing, for some others, there is a play for both philanthropic and commercial capital providers to work together. As we speak, we are creating a platform to curate opportunities for financiers and philanthropists to fund climate adaptation and mitigation in the agriculture supply chain.

However, that is not enough. We realize that climate finance is a complex area and unless there is a meeting ground between science and financing, we will have more talk and less real work. There is also a need to bring multiple types of entities together. We believe that as a wholesale/corporate lender, we can play that role. Some of the other things that we have been working on, lately are as follows. In order to interpret the language of scientists and convert it into the implementation of straightforward guidelines for financiers, we had bought together with the authors of the three most important reports on climate change on a webinar to help "demystify" the climate change reports for the agritech industry. We have a couple of blogs on this webinar and we are genuinely looking for collaborators to help enterprises use and interpret the data and develop climate adaptation strategies which is for all our good.

We have also been hosting experts on a podcast series called Caspian Climate Conversations so that not only our borrowers but all clients and market players understand what they can do to accelerate climate change. These podcasts include entrepreneurs and ecosystem players that are working towards accelerating the adoption of climate change.

We also understand that reducing climate footprint materially requires actual tracking of the improvement. So, tools have to be developed and implemented so that everybody can implement it even in an SME. Some tools are already available but more work is needed to simplify adoption through the development of better and more relevant standards in the Indian context. This is something that is better done by the industry together. Once again, it needs multiple players to come together.

My hope is that over the next 5 years, we are able to help large capital providers to easily move capital into a wide variety of opportunities including everything from solar pumps to micro-cold storages, from electric vehicles to energy-efficient cooling solutions, from biodegradable products to biofuels, from regenerative agriculture to other sustainable practices. We believe that this will enable a much deeper positive climate impact.



## 9. The Climate Change Challenge: Food for thought

1. Climate change has gradually but tangibly started affecting the clients of MFIs and NBFCs. It is imperative for these institutions to keep track of how exposed their loan portfolios are to climate risk. This should form part of their risk management framework.
2. As climate change has globally been recognized as a major risk, there is investor interest in initiatives that attempt to mitigate its ill effects as well as those that attempt to help society adapt to it. This is illustrated in the formation of net-zero alliances of investors and insurers.
3. MFIs and NBFCs are widely acknowledged as institutions that as part of their operations help in climate risk mitigation – such as by financing electric vehicles, as well as, climate risk adaptation – as illustrated in the role played by MFIs in bringing the livelihoods of those affected by disasters such as cyclones back on track. At the same time, these institutions need to systematically monitor the positive aspect of their operations vis a vis climate adaptation.
4. MFIs and NBFCs should disseminate information regarding how their operations reduce the vulnerability of their clients to climate change risks. This could help them in attracting the interest of climate-positive investors.
5. NBFCs and MFIs can also promote microenterprises that use distributed renewable energy solutions, provided these are of high quality and are reliable.
6. In order to be able to effectively promote climate-smart lending the staff members of MFIs and NBFCs should be given training on the subject. **These institutions need to include climate aspects in their regular training and capacity-building initiatives for staff members.**
7. MFIs in particular have a role to play in raising awareness regarding climate change and its impact among their clients. They can also incentivize climate responsible actions by providing preferential status to those clients who adopt practices such as climate-smart agriculture, housing with water harvesting structures, use of renewable energy, and other energy efficiency practices.
8. NBFCs and MFIs can leverage their institutional relationships with social investors and government to provide loans specifically to enable the poor people to cope with climate-related issues, for instance, for household solar energy devices, drip irrigation devices, land development projects to prevent soil erosion, restoration, and rebuilding of dwellings, recovery of livestock, resettlement or rehabilitation of migrant families.
9. Financial Institutions need to work towards jointly evolving well-researched categorical rules and due diligence standards for green financing. Integrating climate risks in institutional governance so that the board of directors is cognizant of the climate risk-related trade-offs in their investment and growth decisions is important.
10. Development of climate-related insurance products for reducing climate vulnerability of the clients should be encouraged – MFIs and NBFCs should actively subscribe to such products.