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BLENDED FINANCE FOR CLIMATE ACTION

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Setting the context

In the face of escalating climate change challenges, nations worldwide are at a critical juncture, taking proactive measures to address climate change for the very essence of survival. Among the countries at the forefront of this battle, **India has committed to reduce its greenhouse gas emissions intensity by a third by 2030 (from 2005 levels). This commitment is primarily driven by a goal to boost renewable energy capacity to 50% of the nation's installed power capacity.**[1]

Climate Financing : Where we stand

- **USD 44 Billion** – Green finance flows in India in 2019/2020
- **USD 170 Billion** – Annual estimate to achieve India's NDC's
- **USD 1.3 Trillion** – Global climate finance investments in 2021/2022
- **USD 8-9 Trillion** – Global climate finance investments needed

Source: Global Landscape of Climate Finance 2023, Climate Policy Initiative; Landscape of Green Finance in India 2022, Climate Policy Initiative

The investment gap to reduce our emissions and meet our targets is substantial and efforts of private capital and public finance will play a crucial role in meeting our commitments. The strategic use of catalytic capital is crucial for leveraging increased private investment in climate-related projects in India. These approaches help mobilise diverse forms of risk capital and harmonise the interests of various stakeholders for building a sustainable and climate-resilient future.

> *"To optimise climate impact in India, in the United States and throughout the world, we all need to work together and combine our resources, from government, from development partners, private sector, financial institutions, philanthropies, civil society and each and every citizen. Blended Finance provides a favourable path forward to do so."*
>
> **John Smith Screen,**
> Director Indo-Pacific Office,
> USAID India

[1] https://www.nrdc.org/sites/default/files/road-from-paris-202009.pdf

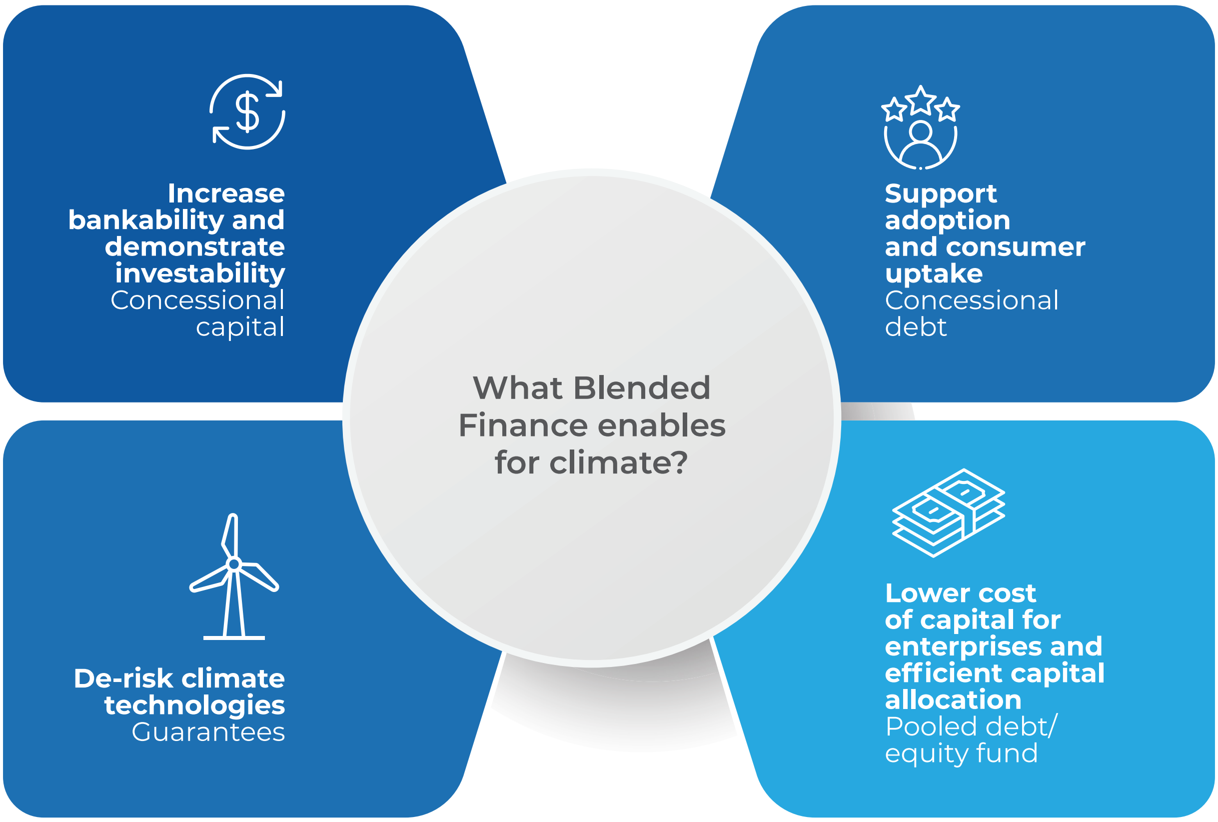
Blended Finance for Climate Action: An Imperative for Impact

02

Blended finance holds the potential to bring together different forms of private capital that could bridge the investment gap, mitigate risks, and spur innovation that can in turn align with India's Net-Zero trajectory. This approach helps:

- Mitigate the limitations and challenges of traditional financing mechanisms
- Align financial strategies with broader developmental goals
- Support upcoming climate focused innovations
- Enable diversified forms of capital—equity, debt, or grants—to be pooled for climate action

As the impacts of climate change become increasingly apparent, there is a growing imperative for investments in climate innovations and blended finance presents this pathway.



Source: Desai & Associates

The blended form of capital helps bridge the gap between the risk-return profiles acceptable to concessional capital providers and commercial investors, thereby enhancing the commercial viability of high-risk perceived climate-related projects.

With this intention - of strengthening the understanding around blended finance mechanisms for climate action, Impact Investors Council (IIC) hosted a dedicated track on "Blended Finance for Climate Action" at the India Green Investment Forum 2023 (IGIF 2023) in November 2023.

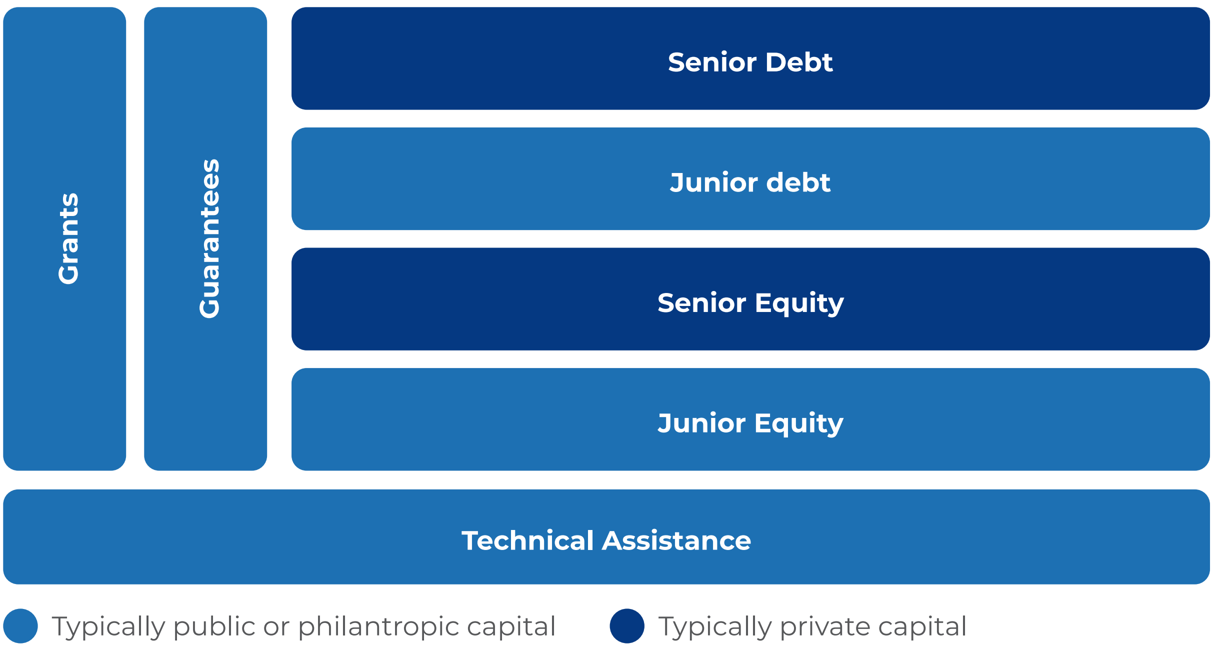
This was an in-person two-day conference bringing ecosystem players from the domestic and international markets, including investors as well as impact enterprises, who together hold the potential to build synergies for climate action.

The sessions were aimed at:

- Building a deeper understanding of blended finance frameworks applicable for 'green' finance
- Demonstrating actionable insights and learnings from practitioners
- Engaging in an action-oriented discussion with domestic and global ecosystem players on the pathway for mobilising finance for 'green' sectors in India

The discussion not only focussed on bridging the financing gap but also highlighted the role of creating a conducive environment for scalable, market-driven climate solutions. The subsequent section deep dives into the insights shared by industry experts who participated in the Blended Finance track, as they opined on the different dimensions of blended finance mechanisms.

Common instruments used in blended finance transactions



Source: London School of Economics

"How do we actually bring in a structured way towards solving problems? We see how climate tech investments are happening in India, how climate focussed technologies are hard to scale, how climate adaptation is not really getting the funding it deserves.... Blended Finance has the potential to bridge all of this, both conceptually and technically, with the use of certain instruments"

Kartik Desai,
Founder & CEO,
Desai & Associates

03

The Blended Finance Construct for Mobilising Green Capital: Expert Insights

While the understanding around Blended Finance and structuring of transactions is garnering increasing investor interest in India, across sectors, we believe that deploying blended finance mechanisms to 'green' solutions merit a deeper understanding of the nuances involved of the sectors that present with them not just a high climate impact but also potential for social upliftment of vulnerable communities.

The insights shared below, are by industry experts, who present a holistic understanding of the considerations while designing blended finance structures for climate impact.

Building a Robust Design

Given the nature and forms of investments that 'green' solutions are witnessing, it is essential to pay due consideration to the design of the financial structure for ensuring that the advantages of 'blended capital' are optimally utilised. This requires the design to:

- Ensure a clear 'de-risking' mechanism for commercial capital
- Define an effective monitoring and evaluation framework
- Endeavour to align achievement of outcomes with commercial incentives for capital providers

Enabling an Ecosystem Transformation

Early-stage climate solutions are new and innovative, and are constrained by challenges in deployment. Experts opined that blended finance structures should therefore:

- Earmark support in the form of 'Technical Assistance' (TA)
- Equip ecosystem players with knowledge, human capital and technological resources.
- Focus on capacity building and awareness programs for local communities, government organisations, and financial intermediaries

Source: Desai & Associates

It was unanimously agreed that blended finance mechanisms for climate action would have to strive to build a long-standing transformation that can hold its own, long after the initial capital investment has been exhausted.

Aligning with Innovation

‘Climate tech’ innovations in India, are oftentimes constrained by limited market awareness and acceptance, thus limiting capital flow. Blended finance structures thus need to align with innovation by:

- Building a focussed funding approach towards climate-tech by addressing not just the ‘capital gap’ but also the ‘support gap’
- Extending technical advisory and capacity building support towards early-stage technologies
- Supporting on-ground pilot demonstration and deployment

Facilitating project preparation

One critical aspect touched upon was the key role that blended finance structures play in relation to building markets for climate focussed solutions by participating in the project preparation & delivery, by extending technical advisory and execution support to projects. This would entail:

- Aligning stakeholders on a common platform
- Building market awareness and understanding
- Structuring work contracts between different implementing parties (For example: suppliers, developers and contractors for a solar rooftop project)
- Defining and standardising internal processes and contract procedures
- Participating in project preparation & delivery by extending technical advisory and execution support to projects

Participants of a blended finance structure can play a critical role in building the bankability and readiness of sectors to receive commercial capital.

Institutionalising Capabilities

The necessity of building an institutionalised approach towards blended finance structures is becoming more pronounced as requirements of capital increase. Such an approach would require:

- Assuming a ‘platform approach’ rather than a ‘transactional approach’ towards financial structuring

- Building a programmatic lens for 'green' sectors in keeping with their nuances and complexities
- Institutionalising capabilities to develop the flexibility of designing bespoke and templatised blended finance structures
- Building and scaling up ecosystem partnerships

Right from fundraising to program management, an institutionalised approach would help building scale and sustainability of blended finance structures.

Developing and Localising Climate Solutions

Localisation of climate focused solutions is necessary especially given geographical requirements in sectors like waste management and agriculture. Localisation requires:

- Facilitating collaborations between climate tech enterprises, grassroots civil society organisations, and self-help groups
- Enabling market linkages to industry collectives, institutional buyers, and local governmental authorities
- Facilitating on-ground deployment and adoption of solutions

Building ‘Green’ Skills

Experts also emphasised on the potential for blended finance structures to build efficiencies of human capital in relatively better-established solutions.

While segments such as solar energy driven solutions and electric vehicles have attracted investor confidence there is potential and necessity to build the knowledge and technical capacity of the workforce involved in such solutions thereby building ‘green skills’.

Blended finance structures present an avenue for supporting such initiatives especially in segments, where the exit pathway on the investment has clear visibility and offers a natural convergence for catalytic capital and commercial capital.

Enabling Return Enhancement

Appropriate financial structuring could also form the pathway for providing ‘return enhancement’ on projects to investors. Catalytic capital could not just de-risk the investment but also assume a lower return on investments, enabling other investors to gain an upside. This would be essential to ensuring increased participation from commercial investors.

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The Blended Finance Construct for Mobilising Green Capital: The Path Ahead

As industry experts shared insights into the key aspects for devising an efficient and effective blended finance structure, they also deliberated on the potential aspects for consideration, as more and more blended capital makes its way to support climate aspects. This would require the synergising between policy, regulation and industry towards enabling an increased participation from private capital.

Aligning Regulatory Frameworks

With the increased focus of policy and regulation on scaling the dialogue around 'green' finance in India, there is ample opportunity to reorient existing regulatory frameworks so as to:

- Enable increased catalytic capital participation in 'green' projects
- Develop bond markets to align with climate focused solutions
- Collaborate with industry and investors to co-create a conducive environment for capital flow

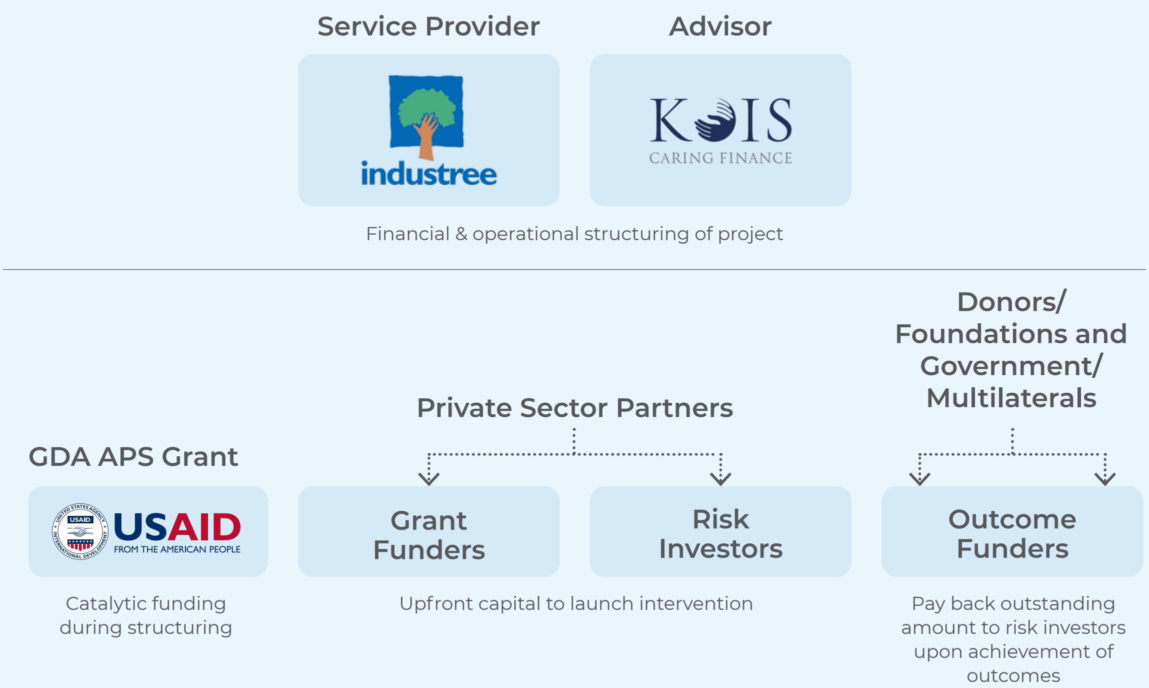
Building Ecosystem Synergies

The path ahead requires varied ecosystem players to forge partnerships and synergise in order to:

- Foster an environment aiding financial institutions build a climate resilience layer in their risk assessments
- Define and measure climate impact outcomes
- Build technical acumen and capacity to scale up climate projects

An example of such a structure can be seen in the blended finance mechanism implemented by the Industree Foundation and KOIS, through their REAL Fund.

The Regenerative Agroforestry and Livelihoods (REAL) Fund, co-created by Industree Foundation and KOIS, leverages a unique innovative financing mechanism involving several forms of patient capital and private investment for an underfinanced agroforestry sector. The REAL Fund aims to create an environmentally and financially scalable model of bamboo value chains, with a focus on women-led empowerment. The project will promote sustainable bamboo cultivation, creation of value-added products and sales via collectives of 10,500 farmers and 800 women artisans in rural Maharashtra, who will together own and manage the end-to-end value chain.



Source: Industree Foundation & KOIS

The proposed blended finance structure enables building a transitory pathway from philanthropy to debt financing. It not only manages the above-mentioned credit risk (which has traditionally been managed through grant financing), but also helps farmers & women enterprises build credit history throughout the project, enabling them to independently become eligible for traditional debt financing instruments in the future. The project thus aims to create a proof of concept that showcases how transitory financing mechanisms can be used to build scalable and sustainable models in the agricultural value chains.

Such mechanisms demonstrate the potential for blended finance to incentivise initial research and the execution of projects with high climate impact. The presence of Outcome Funders in these perceived high-risk projects builds greater visibility and accountability towards achieving impact outcomes, generating data and evidence for the sector, and thereby enabling a supportive lending environment for smallholder farmers and artisans.

Note: Please refer to the Case Study section for the detailed explanation of the structure
Source: Industree Foundation & KOIS

> *"We are building credit histories with debt. Once the credit histories are built as the debt is being repaid, the FPOs can go out in the market and raise debt on their balance sheet. We want to build a collective that scales, that reduces the risk on the agri side and reduces the risk for capital"*
>
> **Parag Vaidya,**
> Associate Partner & CFO, KOIS

Mitigating non-financial risks

Climate focussed solutions are oftentimes characterised by a high operational and business risk given their evolving nature. Blended finance, at the instrument level, can also ensure that the right capital structure is deployed to help mitigate product, technology and other operational risks.

The Case for Climate Mitigation & Adaptation: Blended Finance Structures

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As we see above, blended finance for climate action holds the ability to not just mobilise larger pools of capital but also build industry acumen to participate in more such mechanisms.

It is therefore essential to align financial structures with the nuances of the sectors. Solutions that address climate mitigation and those that are focussed on adapting to climate change are each characterised by different aspects, thereby meriting the deployment of relevant blended finance strategies.

The following section gives visibility into the different forms of blended finance that are well suited to the two interlinked and very critical aspects of climate action.

Blended Finance for Climate Mitigation

Climate Mitigation	Financing Challenge	Potential Solutions	Key Benefits
Decarbonize Heavy Industries	· High cost of capital / capex intensive · Risky investment – Uncertain ROI · Low technological readiness	Pooled funds with guarantees, concessional debt/equity, TA	· Affordable, risk-adjusted capital · Increase investment readiness
Sustainable Agri Solutions	· Early stage enterprises · Muted returns · Requires end-user financing · Small transaction sizes	Blended finance facility with Guarantees and TA	· Affordable end-user financing · Increase investment readiness
Waste Management	· Delayed payments in PPP models · Policy instability · Muted returns · Small transaction sizes	TA, Guarantees, Bill-Discounting Facility for govt invoices, concessional capital	· Enable stable cash flows · Increase investment readiness

Source: Desai & Associates

Blended Finance for Climate Adaptation

Climate Adaptation	Financing Challenge	Potential Solutions	Key Benefits
Biodiversity/ Natural Resource Conservation	• Few limited scale for-profit models • Muted financial returns • Long time horizons	TA Facility, Social Impact Incentive Notes, SIBs/DIBs, Impact linked loan, public finance	• Incentivize existing businesses to layer conservation outcomes • Develop bankable projects
Land Restoration - Agroforestry	• Deemed risky due to high community ownership • Regulatory hurdles • Long time horizons	Blended finance facility with Guarantees, TA, concessional debt, outcome-based financing	• Affordable end user financing • Increase investment readiness • Attract private commercial capital
Disaster Risk Resilience – Drought mitigation	• Few market-proven models • High post-disaster relief financing (low spending on prevention) • Long time horizons	TA, public financing, DIBs/ SIBs, social impact incentive notes. Impact linked loans	• Develop bankable projects • Efficient public financing

Source: Desai & Associates

As we see above, the financing challenge and key benefits are unique to each segment. In order to develop a better ground-up understanding of the nature of structures that could be potentially mainstreamed going forward, the Blended Finance track at the event focused on learning from practitioners their first hand experience of participating in a blended finance structure aligned to climate change.

One such case study covered was that of the Regenerative Agroforestry and Livelihoods (REAL) Fund by the Industree Foundation and KOIS that addressed not just the impact of climate change but also enabled the building of farmer livelihoods.

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Case Studies

Case Study 1: The REAL Fund

The vulnerability of AFOLU[2] sectors to climate-change induced threats is magnified by the financial inability of smallholder and marginal farmers to cope with exogenous shocks. Regenerative approaches that not only target climate mitigation (water conservation, soil erosion, sustainable land use), but also climate adaptation and increased economic opportunities (enabling sustained or increased incomes, productivity, market opportunities) are imperative to incentivize farmers, financial institutions, public institutions and other value chain actors.

An example of such an approach can be observed in the **REAL Fund, co-created by the Industree Foundation and KOIS:**

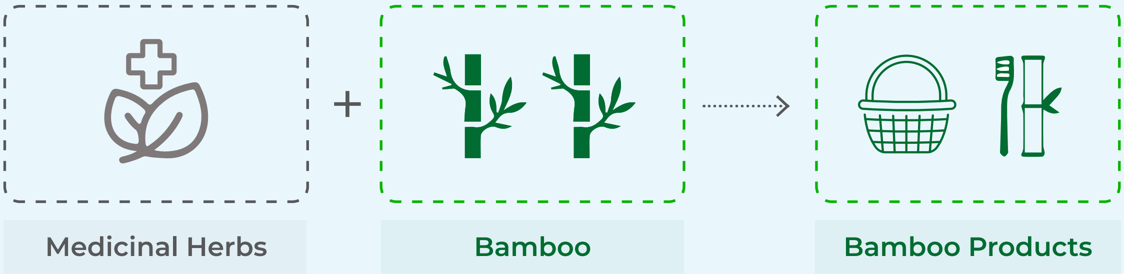
Note: The case study on the REAL Fund has been taken from a Concept Deck prepared by Industree Foundation and KOIS and shared with IIC, for presentation during the Blended Finance track

The REAL Fund: Enhancing outcomes across Equity, Climate and Gender

The **Regenerative Agroforestry and Livelihoods (REAL) Fund** is a USD 15Mn blended finance facility that aims to create an environmentally and financially scalable model of bamboo value chains, with a focus on women-led empowerment. This includes FSC-certified sustainable bamboo plantation, creation of value-added products and sales via collectives of 10,500 farmers (men and women) and 800 producers (women) in rural Maharashtra, who together own and manage the entire value chain.

[2] Agriculture, Forestry and Other Land Use (AFOLU)

The REAL Fund empowers farmer communities through establishing an end-to-end bamboo value chain. While bamboo is the primary crop value chain of the intervention, medicinal plants such as lemongrass, ashwagandha, mint etc. serve as the auxiliary crop value chains. Intercropping of bamboo with medicinal plants provides interim income to farmers during the growth years of bamboo (Year 1 to Year 3) and prevents attrition from the program.



In Year 4 and 5, farmers will be connected with open and institutionalised markets to sell both FSC-certified bamboo and its products, ensuring a sustainable revenue stream for the program.

Source: Industree Foundation and KOIS

Interventions:

Program interventions will include activities that support set-up of plantations and producer enterprises, capacity building and establishing market linkages. The project has been catalysed with the following key objectives:

- **Establish farmer and women-producer collectives** to manage bamboo farming and artisanal production with the aim for them to become operationally self-sufficient;
- **Deliver diverse skill training and capacity building programs** to farmers and producers to enable sustainable land management, sustainable bamboo cultivation and harvesting practices, as well as efficient production and sales;
- **Raise capital for these collectives** to equip farmers and producers with the working capital required to set up operations and to enable them to independently access traditional financing sources in the future through demonstrated credit history.

Expected Outcomes:

The project seeks to enable transformational change on three levels:

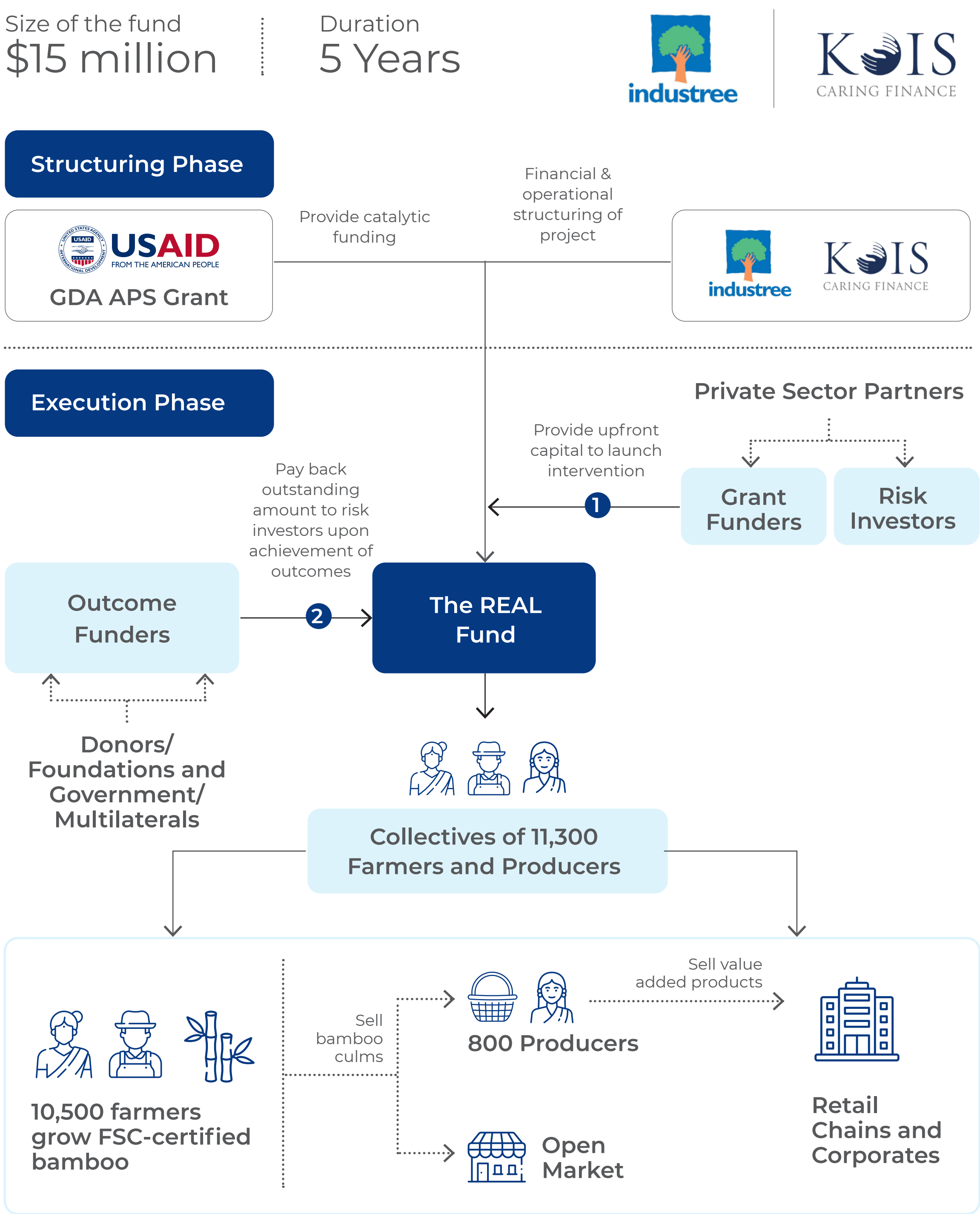
- **Environmental Impact:** By training farmers in sustainable cultivation, harvesting practices of bamboo and regenerative land management, the project aims to plant 1250ha of bamboo sequestering ~20k tons of CO_2 annually. The project would improve land and water management and availability of regenerative natural material.
- **Equitable Livelihood Upliftment:** Through this project, 11,300 rural beneficiaries (farmers and women artisans) would be socially and economically uplifted. Both farmers and women artisans would be organised in self-managed and owned Farmer Producer Organizations (FPOs) and Producer Owned Enterprises respectively. Both farmers and women artisans would be provided skills that enable long term self-sustainability. This would help in increasing income, improve their financial inclusion and working conditions.
- **Women Empowerment:** This project aims to create women led Farmer Producer Organizations (FPOs) empowering ~7,000 women farmers and 800 artisans, and provide them with decent incomes and greater social empowerment. It also works exclusively with women artisans, trains them to take up leadership roles and run producer enterprises as a part of the bamboo value chain.

Key Stakeholders:

Within the instrument, six categories of stakeholders are brought together to jointly enliven traditional bamboo supply chains of India:

- **USAID with its Grant support** provided catalytic funding for structuring the project or financing costs linked to the achievement of specific agreed outcomes.
- **KOIS,** as an Advisor, assisting in structuring and launching the project, including building the operating model, developing MEL (Monitoring, Evaluation & Learning) framework, creating the financial structure, establishing governance model, and providing fundraising support.
- **Industree Foundation as the Service Provider** enabling the formation and capacity building of farmers & producers and manages the end-to-end implementation from plantation to sales.
- **Private Sector Partners as Grant Funders and Risk Investors** providing upfront financing to enable farmers and producers to set up operations until they become self-sustainable.
- **Outcome Funders (Donors/Foundations)** providing private capital repayment and interest on such capital depending on achievement of agreed payment milestones and outcomes metrics agreed between parties.
- **Retail Chains and Corporates serve as off-takers** of value-added products made from bamboo by producer-owned enterprises to ensure responsible and sustainable supply chains.

The project seeks systemic change across three levers: Equity, Climate and Gender



Expected Impact

Environmental Development: 1,250 ha of bamboo planted sequestering ~20k tons of CO_2 annually

Women Empowerment: 4 producer enterprises established employing & empowering 800 women

Livelihoods Upliftment: 10,500 farmers (men & women) supported 11,300 rural beneficiaries uplifted socially & economically

Source: Industree Foundation and KOIS

The Project's path to Sustainability:

The project will establish a commercially viable bamboo value chain and enable long-term, systemic change for farmers and producers:

The project will eventually be self-sustainable through revenues generated by farmers and artisans	Innovative finance will enable beneficiaries to build credit histories and access traditional financing sources	Corporate off-takers will source directly from program beneficiaries and deepen the impact of their supply chain for bamboo products

Source: Industree Foundation and KOIS

This structure exemplifies how catalytic capital can enable mobilisation of private investment in sectors (such as agroforestry) whose risk-return profiles may not be immediately suitable for traditional investors. The blending of grant and risk capital further demonstrates a holistic, synergistic approach towards creation of an innovative finance framework that extends both financial and technical support to ensure impact sustainability and scale.

Case Study 2: The Green Climate Fund

While structures like the REAL Fund are gradually drawing the interest and participation from private capital providers, we also observe blended finance stepping in to fund Clean Energy solutions in India. The Blended Finance tracker published by IIC, through its India Blended Finance Collaborative (IBFC), lists the different climate-aligned structures that India has seen in the last decade. One such structure has been captured in greater depth below.

Note: The details on this Fund have been taken from publicly available sources.

International Climate Finance from GCF for India's Solar Rooftop Drive[3]

In 2018, the Green Climate Fund (GCF) via NABARD (accredited as the direct access entity (DAE) of the GCF) extended concessional loan assistance of $ 100 million (~ €92 million) for the development of rooftop solar power in India's commercial, industrial, and residential sectors.

- NABARD on-lent to Tata Cleantech Capital (joint venture between Tata Capital Ltd. and International Finance Corporation (IFC)), an NBFC lending to rooftop solar projects.
- This catalytic capital was supported by an additional $ 100 Mn from Tata Cleantech Capital, and $ 50 Mn by private investors/equity.
- This blended finance structure thus had a total leverage of 1.5:1.
- The programme proposed to replace 250 MW of grid power with power generated from solar rooftop projects.

This programme had a timeline of 5 years, which would help develop the market for solar rooftop financing to meet the government of India's ambitious target of 40 GW of rooftop solar power by 2022.

Lack of financial resources has been one of the key reasons towards the slow growth and adoption of solar rooftops in India. The financial assistance extended through this program addressed this very issue. The concessional capital aimed to create energy access for most vulnerable areas and MSMEs with poor energy access[4].

[3] https://www.nabard.org/news-article.aspx?id=25&cid=552&NID=150
[4] https://www.diw.de/documents/dokumentenarchiv/17/diw_01.c.794583.de/background_report_india.pdf

Summing it up

As we contextualise and understand the rationale for blended finance for climate action, its relevance and criticality is more crucial than ever before. A well designed blended finance structure can mobilise green capital by:

- De-risking projects and enabling return-enhancement for investors
- Facilitating ecosystem linkages and building technical and financial capacity of stakeholders
- Localising financing structures to sector and demographic specific contexts
- Developing an effective monitoring and evaluation methodology, thereby building accountability towards outcomes

Acknowledgments

07

We at the Impact Investors Council (IIC) would like to extend our sincere gratitude to our expert speakers who shared their invaluable insights as part of the Blended Finance track at the India Green Investment Forum, 2023 - Mr. John Smith Screen, Director Indo-Pacific Office, USAID India, Kartik Desai, Founder & CEO, Desai & Associates, Parag Vaidya, Associate Partner & CFO, KOIS and Swati Bharadwaj, Head - Strategic Partnerships, Tata Cleantech Capital Ltd., Aanchal Jain, Associate Director, IPE Global Ltd., Agustin Vitorica, Co-CEO, Gawa Capital, Dhruba Purkayastha, India Director, Climate Policy Initiative, Nirav Khambhati, Partner, The Blended Finance Company, Starlene Sharma, Founding Partner, Green Artha. Their perspectives and exemplary case studies have helped shape the insights put together through this white paper.

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