

# Scaling Low-Methane Rice in India: Solutions from Field to Finance

## Roundtable Discussion

**Date:** Tuesday, 7th April 2026

**Time:** 10:30 am – 1:30 pm

**Mode:** Closed-door discussion

**Venue:** The Claridges, New Delhi

## About Climate Policy Initiative (CPI)

Climate Policy Initiative (CPI) is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to support governments, businesses, banks, and financial institutions to drive economic growth while addressing climate change. CPI has offices in Austria, Brazil, India, Indonesia, South Africa, the United Kingdom, and the United States.

## Background

Rice cultivation plays a central role in India's food security and rural economy, with over 51 million hectares under paddy cultivation. At the same time, flooded rice fields are a major source of methane emissions due to the anaerobic decomposition of organic matter. According to India's Fourth Biennial Update Report, paddy cultivation emitted approximately 3.2 million tons of methane in 2020, accounting for around 23% of agricultural methane emissions, making rice cultivation an important focus area for climate action.

Methane mitigation in rice offers a rare convergence of climate, water, and livelihood benefits. Unlike carbon dioxide, methane has a relatively short atmospheric lifetime of about 12 years but a much higher warming potential (GWP20: 83; GWP100: 21). This means that rapid reductions can significantly slow near-term warming, complementing longer-term decarbonization efforts.

This work builds on CPI's engagement under Mobilizing Sustainable Finance for Methane Abatement in India (MASFMA), an initiative supported by the Global Methane Hub (GMH). Within the broader MASFMA program, India's workstream was expected to focus primarily on agriculture-related methane emissions from inundated rice cultivation and livestock.

To address these gaps, we conducted extensive stakeholder consultations across rice cultivation and livestock systems, complemented by an expert survey and a review of existing literature. These insights are being used to develop a white paper "**Transforming Paddy Cultivation: Sustainable Solutions for Methane Reduction in India,**" which will present an evidence-based overview of mitigation pathways, implementation barriers, and financing challenges.

Existing evidence suggests that sustainable rice cultivation practices can significantly reduce methane emissions while delivering co-benefits such as water savings, cost reductions, and productivity gains. For example, direct-seeded rice (DSR), under certain conditions, have been found to reduce methane emissions by up to 40% while lowering irrigation demand and cultivation costs. Alternate wetting and drying (AWD) can reduce emissions by 30-70%,

depending on soil and water conditions, while the system of rice intensification (SRI) has demonstrated improved yields alongside reduced water and seed use in several pilot settings.

Despite this strong technical potential, large-scale adoption remains limited. Field-level transitions are constrained by behavioral inertia, perceptions of income risk, delayed subsidy delivery, limited technical capacity, and the absence of methane-specific financial incentives. Stakeholder consultations indicate that the challenge is not only technological readiness but also misalignment between finance, policy incentives, and implementation capacity.

Building on this work, we are convening a **closed-door roundtable on methane mitigation pathways in sustainable rice cultivation** on **7 April 2026**. The discussion will bring together policymakers, financial institutions, technical experts, civil society organizations, and implementation partners to explore financing gaps, MRV readiness, and institutional pathways required to scale methane mitigation in rice. Insights from the discussion will complement the learnings emerging out of the stakeholder discussions and the survey and will be integrated into the white paper.

## Objective

This roundtable aims to move the conversation on methane mitigation in rice cultivation from intent to implementation. It will bring together key stakeholders to identify the real barriers to scaling, explore financing approaches suited for smallholder farmers, and clarify what credible monitoring, reporting and verification (MRV) systems should look like from a policy and lender perspective. The discussion will also examine how existing agricultural schemes can better integrate methane outcomes and align practical priorities for the next phase of action.

Particulars	Time
<b>Registration (tea/coffee)</b>	10:00 am - 10:30 am [30 mins]
<b>Welcome &amp; Opening Remarks</b> <b>Speaker:</b> Debal Mitra	10:30 am - 10:35 am [5 mins]
<b>Context Setting Presentation</b> Key findings from stakeholder consultations and survey <b>Speaker:</b> Monika Chakraborty	10:35 am - 10:50 am [15 mins]
Open Q&A	10:50 am - 11:00 am [10 mins]

Session	Discussion Focus	Guiding Discussion Prompts	Time
<b>Session I: Implementation pathways for sustainable rice cultivation methods</b>	Examining the institutional architecture, program design, and governance structures required to translate technical mitigation potential into	<ul style="list-style-type: none"> <li>What forms of policy realignment and institutional coordination are needed to integrate methane mitigation more systematically within broader agricultural and climate transition strategies? How can programs mainstream methane mitigation while simultaneously protecting farm</li> </ul>	11:00 am - 12:00 pm [1 hr]

Session	Discussion Focus	Guiding Discussion Prompts	Time
<p><b>Moderator:</b> NK Srilasya</p>	<p>large-scale adoption across India's rice systems.</p> <p><b>Speakers (tentative):</b> World Bank, IRRI, ICAR, FAO, thinktanks and NGOs, carbon project developers</p>	<p>incomes and enhancing agricultural productivity?</p> <ul style="list-style-type: none"> <li>Experiences across multiple states suggest that promising pilots often struggle to transition into sustained programs. What operational and governance considerations should be prioritized to move from project-based experimentation toward program-level implementation across major rice-producing regions? What is the role of technical assistance and extension support?</li> <li>The credibility of methane mitigation programs will depend heavily on robust measurement and verification frameworks. In smallholder-dominated agricultural systems, how can MRV approaches balance scientific integrity with operational feasibility, particularly by integrating modelling tools, digital monitoring systems, and targeted field measurements?</li> <li>How can existing institutional platforms at various levels, such as national or state agricultural missions, or farmer aggregation networks, realistically anchor methane mitigation programs?</li> </ul>	
<p><b>Open Q&amp;A</b></p>			<p>12:00 pm - 12:10 pm [10 mins]</p>
<p><b>Session II: Financing Pathways for Methane Mitigation at Scale</b></p>	<p>Exploring financial architectures, risk-sharing mechanisms, and investment models that could enable the large-scale deployment of</p>	<ul style="list-style-type: none"> <li>Scaling methane mitigating programs in rice cultivation will require upfront investments in farmer engagement, aggregation models, and MRV infrastructure, often before reliable revenue streams are established. What types of financing structures could</li> </ul>	<p>12:10 pm- 1:10 pm [1 hr]</p>

Session	Discussion Focus	Guiding Discussion Prompts	Time
<p><b>Moderator:</b> Amandeep Singh</p>	<p>methane mitigation practices in agricultural supply chains.</p> <p><b>Speakers (tentative):</b> Development banks, financial institutions, investors, NABARD, NAFCC</p>	<p>most effectively support early-stage program development and help bridge the initial viability gap?</p> <ul style="list-style-type: none"> <li>• Blended finance instruments are frequently proposed as mechanisms to catalyze private investment in climate solutions. Within the methane mitigation ecosystem, where could guarantees, concessional capital, or results-based payments play the most catalytic role in reducing perceived risk and unlocking larger pools of capital?</li> <li>• Agricultural supply chains are increasingly under pressure to demonstrate measurable sustainability outcomes. To what extent could sustainability-linked finance or supply chain-based financing mechanisms be structured to support the adoption of low methane rice cultivation practices, and what forms of performance metrics would financial institutions consider credible?</li> <li>• A range of financing models is currently being piloted across climate mitigation sectors. Looking ahead, which approaches appear most promising for scaling methane mitigation in India's rice sector, and what ecosystem conditions would be required to enable their broader replication?</li> </ul>	
<b>Open Q&amp;A</b>			1:10 pm - 1:20 pm [10 mins]
<b>Closing Reflections and Next Steps</b>			1:20 pm – 1:30 pm [10 mins]
<b>Speaker:</b>			
<b>Networking Lunch</b>			1:30 onwards

## **About the GMH – CBI – CPI Methane Abatement Program**

The Climate Bonds Initiative, C40, and Climate Policy Initiative are collaborating under the Global Methane Hub to accelerate credible methane abatement across priority sectors. The program focuses on building financing frameworks, improving market understanding of methane mitigation, and supporting stakeholders in integrating methane into transition planning.

Stakeholder consultations, such as webinars and roundtables, are central to this effort, helping translate research into actionable pathways and coordinated ecosystem responses.

Following earlier engagement on bioenergy, this roundtable shifts attention to rice cultivation, where large mitigation potential exists but scaling remains limited.