

POLICY BRIEF

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# How to Start Scaling Methane Abatement Finance

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## ABOUT CLIMATE POLICY INITIATIVE

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# 1. INTRODUCTION

**Methane abatement offers one of the fastest and most cost-effective ways to cut emissions.** While carbon dioxide (CO<sub>2</sub>) has a longer-lasting effect, methane has a near-term warming power more than 80 times that of CO<sub>2</sub>, greatly affecting near-term global warming (Forster et al., 2021). Methane abatement must be prioritized alongside decarbonization in order to reach our climate goals.

**Methane abatement offers among the highest global warming reduction benefits per dollar invested, but historically has been underfinanced** (CCAC and UNEP, 2021; CPI, 2022). Many methane reduction solutions can be implemented at no net cost and have similar climate change mitigation potential to low-carbon transport and renewable energy (IEA, 2023a; CPI, 2022).

## Box 1: What is Methane Abatement?

Methane abatement uses various strategies and technologies to limit the release of methane into the atmosphere from human-related sources. An estimated 60% of global methane emissions come from human activities (IEA, 2023a).

**Most methane abatement solutions target three broad sectors**, that together account for 95% of anthropogenic emissions: **AFOLU** (agriculture, forestry, and other land use) (40%); **fossil fuels** (including oil, gas and coal) (35%); and **waste** (including solid waste and wastewater) (20%) (CCAC & UNEP, 2021). As the largest methane emitters, these sectors offer the greatest opportunity for abatement and curbing of near-term global warming. Implementing available methane abatement technologies and practices in these sectors could reduce approximately 180 million tonnes of methane per year, offering a reduction of as much as 45% of human-related methane emissions by 2030 (CCAC & UNEP, 2021). Methane mitigation also brings additional benefits, like improved air and water quality (CCAC and UNEP, 2021).

Examples of targeted methane abatement measures include:

- **AFOLU:** Livestock digestion and productivity, livestock manure management, rice paddy management, AFOLU residue and biomass burning practices.
- **Fossil fuels:** Upstream and downstream methane leak detection and repair, recovery and utilization of vented gas, control of fugitive emissions from oil and gas production, coal mine methane management.
- **Waste:** Methane recovery from wastewater, waste-to-energy, improved landfill methane management.

In 2021/2022, tracked methane abatement finance averaged USD 13.7 billion per year,<sup>1</sup> an increase of 18% compared to flows in 2019/2020 (USD 11.6 billion) (CPI, 2023a). However, **globally, an estimated USD 48 billion per year by 2030 is needed in methane abatement finance, leaving a large financing gap of USD 34 billion per year** (Harmsen, 2019; CPI, 2023). Methane abatement projects face many challenges in obtaining financing, including lack of investors' awareness of investment opportunities, lack of viable projects, investors requiring larger ticket sizes, lack of policy support, and hesitance over financing projects in heavy emissions industries, such as oil and gas.

<sup>1</sup> Methane abatement finance flows are calculated as biennial averages to smooth out annual fluctuations in data, and are expressed in nominal USD. This means that annual figures do not account for the effects of inflation and exchange rate volatility over time.

Recently established initiatives, including the Global Methane Pledge (GMP) (2021) and the associated Methane Finance Sprint (2023), as well as various industry-led efforts,<sup>2</sup> have raised the prominence of methane abatement on the climate agenda (The White House, 2023). However, significant further action by both private and public actors is needed to scale methane abatement finance.

This brief accompanies Climate Policy Initiative's 2023 Landscape for Methane Abatement Finance Report and **lays out near-term priority areas and options for three stakeholder groups to advance methane abatement finance:**

1. Domestic policies for methane abatement finance
2. Public international methane abatement finance
3. Corporate and private financial institutions

Building on the momentum of recent initiatives such as the GMP and the associated Methane Finance Sprint, we hope this briefing guides public and private sector decision-makers on where to start when seeking opportunities to close the methane abatement finance gap.

Another accompanying report, Spotlight: Financing Oil & Gas Methane Abatement in Southeast Asia, presents an **overview of methane abatement activities and opportunities in Southeast Asia's oil and gas industry** to demonstrate intervention options in practice.

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<sup>2</sup> Some notable examples of industry-led initiatives include: Oil and Gas Climate Initiative, Oil and Gas Methane Partnership 2.0, China Oil and Gas Methane Alliance, Global Dairy Platform's Pathways to Dairy Net Zero, Global Research Alliance on Agricultural GHG Gases, Zero and Waste Cities.

## 2. PRIORITY AREAS FOR ADVANCING METHANE ABATEMENT

We spotlight five priority areas, listed below and described in Table 1, to enable stakeholders to identify crucial entry points to investment.

1. **Implement stringent policies or regulations to limit methane emissions in tandem with fiscal policy tools** that encourage or compel the uptake of existing methane abatement solutions in methane-intensive sectors (fossil fuels, AFOLU, waste).
2. **Embed methane abatement in climate and investment strategies and practices** across key actors – including governments of countries with high methane emissions exposure, international public finance institutions, and private corporations and financial institutions with high exposure to methane-related risks and opportunities.
3. **Deepen understanding of financing opportunities** for methane abatement projects, determining specific investment opportunities by sector, region, or country, to target with catalytic concessional finance using innovative financial instruments.
4. **Create R&D funding and incentives for identification and development of innovative high-potential commercially scalable technologies**, such as remote satellite sensing, crop residue management and enteric fermentation.
5. **Improve capacity on monitoring, reporting, and verification (MRV) of methane emissions** to increase the transparency and accuracy of methane emission inventory.

These present near-term, overarching actions for public international financial institutions (IFIs), domestic policy makers and private sector actors to address key barriers and spur growth in methane abatement finance. Using these five priorities to identify entry points, this briefing presents available intervention opportunities for stakeholders seeking to advance:

- Public international methane abatement finance;
- Public domestic methane abatement finance; and
- Corporate and private sector methane abatement finance.

**Table 1:** Overview of priority areas to advance methane abatement finance

		Implement regulations and fiscal policy tools	Embed methane abatement in strategy	Deepen investment opportunities	Create R&D funding and incentives for innovation	Improve capacity and transparency of MRV for methane emissions
<b>Actor(s)</b>	IFIs	✓	✓	✓		
	Domestic policy makers	✓	✓	✓	✓	✓
	Private sector		✓	✓	✓	✓
<b>Key barriers addressed</b>		<p>Lack of regulatory frameworks and enforcement of regulation</p> <p>Lack of economic incentives to mitigate methane</p>	<p>Lack of awareness and interest in methane abatement related investment and impact opportunities</p> <p>Narrow focus on reducing emissions (e.g. decarbonization only)</p>	<p>Lack of viable, large ticket project pipelines</p> <p>Lack of available concessional finance for methane abatement</p> <p>Investor hesitancy over financing heavy emission industries (e.g., oil &amp; gas)</p>	<p>Lack of available concessional finance for methane abatement to spur innovation</p> <p>Lack of investable projects</p> <p>Lack of capacity and expertise</p>	<p>Limited available data on methane emissions and emissions reductions to measure progress</p> <p>Lack of technical or financial capacity to monitor, track and report emissions</p>
<b>Examples of activities</b>		<p>Providing sector-specific guidance on operational standards and best practices</p> <p>Strengthening financial incentives, consequences, and the legal framework</p> <p>Providing support where technical capacity is limited through technical assistance facilities</p>	<p>Commitments such as GMP, Net Zero Strategies, or other methane abatement initiatives</p> <p>IFI Paris Alignment to embed methane abatement in lending strategies</p> <p>Establishment of national or company methane action plans</p>	<p>Increase of concessional finance through blended finance structures or innovative financial instruments with a view of attracting more finance, particularly in areas that have difficulty attracting private finance</p>	<p>Financing research on innovative technologies, such as remote sensing, crop residue management or enteric fermentation</p> <p>Enhancing research on a granular breakdown of the high-emitting sectors and their specific investment opportunities by region / country.</p>	<p>Establish sector-specific guidelines and methodologies for the monitoring, verification, and reporting of methane emissions</p>

# 3. OPPORTUNITIES FOR ADVANCING METHANE ABATEMENT FINANCE

An 8x increase in methane abatement finance is needed,<sup>3</sup> both public and private actors will need to mobilize large volumes of finance, ideally with larger participation from the private sector (Harmsen, 2019; CPI, 2023a).

**All actors have a role to play in helping to scale methane abatement finance.** This subset of climate mitigation finance is at an early stage, but immediate action could significantly advance abatement solutions beyond initial development phases.

## 3.1 DOMESTIC POLICIES FOR METHANE ABATEMENT FINANCE

Domestic action for methane abatement will be led by governments and regulators, who can cultivate an enabling environment by reducing policy uncertainty, and setting a strong and clear regulatory agenda. A list of related opportunities is shown in Table 2.

**Table 2:** Opportunities for governments and regulators to advance public domestic methane abatement finance

Priority Area	Recommended actions
Implement regulations and fiscal policy tools	<p>A. Establish and enforce:</p> <ul style="list-style-type: none"> <li>Stringent methane emission limits by sector</li> <li>Best practices for methane-intensive operations and sectors</li> </ul> <p>B. Mandate tracking and reporting of methane emissions, especially in high-emitting sectors</p> <p>C. Use fiscal policy tools to encourage investment, including:</p> <ul style="list-style-type: none"> <li>Tax incentives/cuts for methane abatement projects</li> <li>Subsidies for low-methane or methane abatement projects</li> <li>Taxation and/or fines for methane emissions</li> </ul>
Improve capacity and transparency of MRV	<p>A. Create and enforce frameworks and standards for transparent methane emission monitoring and reporting</p> <p>B. Establish an information tool for how methane is measured, monitored, and modelled (e.g., real-time data for methane pollution on LNG projects)</p>
Fund R&D and incentivize innovation	Create R&D and innovation stream of funding for grants or other government-provided finance for methane abatement

<sup>3</sup> Through 2050, under a +2°C warming scenario



### 3.1.1 IMPLEMENT REGULATIONS AND FISCAL POLICY TOOLS

**Governments should develop a timetable for establishing enhanced and progressively legally binding methane mitigation targets at national and sector levels.** In addition, governments should establish and enforce sector-specific operational standards and best practices that target methane emission reduction.

Regulatory and financial incentives can encourage and compel private sector actors to invest in equipment and technologies that mitigate, monitor, and/or control methane emissions. Governments can implement a suite of policies such as sector-specific minimum equipment or operational standards with penalties for methane leakage and incentives for reduction. For example, fugitive emission leaks are estimated to be the largest source of methane emissions for the oil and gas industry (IEA, 2023a). Banning all non-emergency flaring and venting of methane during oil and gas production is therefore the most impactful and cost-effective measure for countries to reduce methane emissions, and should be prioritized by policy makers (IEA, 2023a). Some governments have already begun setting such standards within key sectors (Box 2).

#### Box 2. Abatement-related government policies

The Nigerian Upstream Petroleum Regulatory Commission released operational and equipment standards for oil and gas facilities to eliminate gas flaring by 2030 and reduce fugitive methane emissions and leakages by 60% by 2031. Non-compliance can lead to fines for personnel and operators, denial of permits for further work, or even revocation of licenses (NUPRC, 2022).

Kazakhstan's new environmental code (2021) increases rates of emissions payments over ten years for those companies that do not adopt best available technology (Republic of Kazakhstan, 2021).

**Governments can also mandate tracking and reporting of methane emissions, especially in high-emitting sectors.** Establishing reliable country-level methane emissions inventories is a crucial starting point for methane abatement; understanding current emissions serves as a building block for all other interventions. Unlike CO<sub>2</sub> emissions, only a small fraction of global methane emissions is currently regulated (IPCC WGIII, 2022). Therefore, mandating the tracking and reporting of methane emissions, particularly in high-emitting sectors such as fossil fuels, waste, and AFOLU is a critical first step for governments and regulators.

Governments should mandate the reporting of Scope 1 and 2 methane emissions in these key sectors, and Scope 3 emissions<sup>4</sup> for companies with methane-intensive value chains, such as livestock and rice production. They should also mandate the reporting of fugitive emissions in the oil and gas industry.

Some governments have methane reporting mandates, but these could often be strengthened. For instance, since 2010, the U.S. Greenhouse Gas Reporting Program (GHGRP) has required major emitters to report their emissions for seven GHGs, including methane. The GHGRP defines major emitters as facilities that emit at least 25,000 tCO<sub>2</sub>e/yr, and the rule applies to large GHG emission sources, fuel and industrial gas suppliers, and CO<sub>2</sub> injection sites, covering approximately 8,000 facilities (EPA, 2023). However, GHG emissions from smaller sources (e.g., AFOLU activities), and Scope 2 methane emissions are not covered (EPA, 2023). Given that AFOLU is the second-largest source of methane emissions in the U.S., a large portion of emissions go unreported. While some states (e.g., California) have more stringent methane reporting requirements, these generally regulate only the oil and gas industry (IEA, 2023a).

<sup>4</sup> Scope 1 methane emissions are direct emissions from owned or controlled processes, Scope 2 emissions consist of indirect emissions from purchased electricity, Scope 3 emissions are all other indirect emissions that occur in an actor's value-chain

**Given the large financing gap, it is important to incentivize finance flows to methane abatement by leveraging policy tools and public and private partnerships.** In addition to directly funding abatement activities through grants, governments can have a larger impact by indirectly enabling finance using fiscal policy tools.

For example, emissions fees or tax credits can encourage companies' methane abatement. For example, the U.S. Inflation Reduction Act established a methane emissions charge, which imposes a fee on each metric ton of methane emitted from regulated facilities (Congressional Research Service, 2022). This marks the first time that the U.S. government has directly imposed a fee, charge, or tax on GHG emissions.

Governments can also incorporate methane into emissions trading schemes (ETS). The European Parliament plans to extend its ETS to cover shipping emissions, requiring international shipping companies to pay for CO<sub>2</sub>, methane, and nitrous oxide (Lin, 2022). Currently, the ETS covers CO<sub>2</sub> in other sectors, and efforts are now needed to develop methane emissions accounting and allowance pools (Lin, 2022).

Leveraging public-private partnerships (PPPs) by setting standards for public infrastructure also offers an opportunity for governments to direct finance to methane abatement. For instance, governments could require all proposals for public projects, such as public landfills or wastewater management systems, and prioritize methane abatement in project selection. For instance, in the U.S., the Federal Buy Clean Initiative (2021) seeks to harness the vast purchasing power of the federal government to prioritize low-carbon construction materials in federal procurement and federally funded projects (CEQ, 2023). Similar initiatives prioritizing methane reductions in public procurement would be particularly relevant for municipalities, which coordinate waste and wastewater projects for their jurisdictions.

Fiscal policies and PPPs will incentivize uptake of existing methane abatement technologies and signal to the private sector that methane abatement is a regulatory priority, encouraging companies to act.

### **3.1.2 IMPROVE CAPACITY AND TRANSPARENCY OF MRV**

**Governments can aid in developing definitions and frameworks for effective methane abatement MRV, by establishing sector-specific guidelines.** Given that many companies lack the technical or financial capacity to monitor, track and report emissions, governments should also support accurate and transparent data collection and reporting. Particularly for verification of methane emissions, considered the most difficult and least developed component of MRV, governments could establish verification definitions and guidelines to ensure accuracy and standardization of reported methane emissions (Olczak, Piebalgs, & Balcombe, 2022). Guidelines should also include minimum standards and require the use of best available technology for methane MRV.

For instance, governments could set requirements for leak detection and repair (LDAR) technologies and practices, which locate and repair fugitive emissions in the oil and gas sector. Currently, oil and gas operators may be required to conduct at LDAR at regular intervals or on a voluntary basis (Olczak, Piebalgs, & Balcombe, 2022), meaning that the quality of LDAR practices varies. One example of standard setting is the E.U. methane strategy for the energy sector, which prioritizes MRV and mandates LDAR in order to build a knowledge base on exact locations and volumes of methane emissions (European Parliament, n.d.).

Where possible, governments should leverage and strengthen existing systems and regulations that mandate tracking and reporting of emissions such as CO<sub>2</sub>, while also ensuring that methane emissions are accounted for separately. They can also provide technical assistance (TA) to smaller companies with limited technical or financial capacity, especially to integrate innovative approaches. For instance, improvements in remote sensing, geospatial analysis and machine learning have made innovative models for methane

detection more accessible (Schroer & Woschitz, 2023). However, adoption of such practices remains low, signaling an opportunity for governments to mandate these approaches and use TA facilities to coordinate implementation.

### 3.1.3 FUND R&D AND INCENTIVIZE INNOVATION

**Research is another key through where governments can advance methane abatement technologies, accelerate innovation, and further reduce technology cost.** Concessional and direct public finance (e.g., in the form of grants) is crucial for promoting innovation and scaling early-stage technologies.

For example, the U.S. Department of Energy (DOE) has awarded USD 35 million to twelve methane reduction research endeavors as part of the Advanced Research Projects Agency–Energy Reducing Emissions of Methane Every Day of the Year program (DOE, 2023). Projects funded include innovations to natural gas engines, flare design and controlling methane from coal mine shafts.

The Global Methane Hub’s Enteric Fermentation Research and Development Accelerator also aims to mobilize at least USD 200 million from philanthropy and public and private sectors to research and develop enteric methane mitigation technologies.<sup>5</sup>

## 3.2 PUBLIC INTERNATIONAL METHANE ABATEMENT FINANCE

Potential sources of international methane abatement finance include multilateral development banks (MDBs), bilateral development finance institutions (DFIs), multilateral climate funds (MCFs), bilateral donor governments,<sup>6</sup> and international development agencies, broadly referred to as international financial institutions (IFIs) in this paper.

**IFIs must play a catalytic role in promoting methane abatement finance** by providing concessional finance, technical expertise, and partnering with both public and private sector stakeholders to catalyze private investment.

IFIs can work on a global scale to reach geographies that are most in need of support and sectors or technologies that have difficulties attracting finance. They can advance methane abatement finance by **supporting policies and regulations in their countries of operation, embedding methane in climate investment strategies, defining related investment opportunities** in their areas of operation.

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<sup>5</sup> The Accelerator has funding commitments from many government entities, including USD 5 million from the U.S. Department of Agriculture.

<sup>6</sup> Governments can also advance international methane abatement by providing direct finance through development aid and knowledge sharing, working with other governments to standardize and harmonize policies and practices, and by empowering MDBs to prioritize methane abatement.

**Table 3:** Opportunities for IFIs to advance international methane abatement finance

Priority Area	Recommended actions
<b>Support policies and regulations in countries of operation</b>	Support and encourage governments to implement methane abatement policies, by: <ul style="list-style-type: none"> <li>▪ Coordinating knowledge sharing between governments</li> <li>▪ Providing TA and training for governments on methane reduction policy implementation</li> <li>▪ Coordinating private-public partnerships in high-emitting sectors</li> </ul>
<b>Embed methane abatement in strategy</b>	Incorporate methane into existing climate methodologies, strategies, and commitments.  E.g., embed methane within MDB climate strategies, such as the Joint MDB methodology on climate mitigation finance.
<b>Deepen investment opportunities</b>	Increase dedicated grant financing facilities for methane abatement solutions.  Use innovative instruments to attract private investment, such as: <ul style="list-style-type: none"> <li>▪ Blended finance</li> <li>▪ First loss guarantees</li> <li>▪ Capital market instruments (e.g., green bonds)</li> <li>▪ Policy-based lending</li> <li>▪ Results-based financing</li> </ul>

### 3.2.1 SUPPORT METHANE ABATEMENT POLICIES AND REGULATIONS

IFIs are well placed to reach countries and sectors where finance is lacking and to drive further public and private capital. **IFIs could consider setting country- and sector-specific methane abatement programs to support countries in delivering on their commitments under the Global Methane Pledge.** At the project level, TA facilities can provide project preparation facilities, training for project implementation and development, guidance on best practices and technologies, overseeing and facilitating pipeline of methane abatement projects.

**IFIs should use their TA facilities to build project capacity in specific sectors and countries with high methane mitigation potential but limited methane abatement in practice.** For example, Turkmenistan and Venezuela have the highest methane emission intensities in oil and gas production (IEA, 2023a). This presents an opportunity to work with existing development assistance providers in these countries to increase these countries’ technical capacity for methane abatement solutions, such as methane LDAR or capture. IFIs, particularly bilateral DFIs, can provide TA on implementing methane abatement activities in their focus regions or sectors. Bilateral DFIs usually have narrower geographical or sectoral scopes than MDBs, and are focused on partnering with private sector actors in developing countries (Dickinson). This may allow them to better understand specific challenges and opportunities related to methane abatement, especially for private companies, in their areas of operations.

**To improve methane abatement policies, IFIs, particularly regional development banks, can support priority governments in the Global South on adopting effective methane reduction policies.** They could also actively encourage those with high methane emission reduction potential that have not yet joined the Global Methane Pledge to do so. For instance, Turkmenistan, which had the highest number of methane “super-emitter” events in 2022, has approved a methane Roadmap for 2023-24, but has not yet officially joined the Global Methane Pledge (Carrington, 2023). Venezuela also has not joined, and has no methane

action plan, though the country is in preliminary talks with the E.U. to build a USD 1.5 billion methane capture plant (Bloomberg, 2023).

For high methane-emitting countries and sectors, regional development banks can build capacity for methane abatement through TA, training, and policy programs. They can improve local expertise in methane abatement among both the private sector and governments, as well as raising awareness of the feasibility and positive impacts of methane abatement.

## **3.2.2 EMBED METHANE ABATEMENT IN STRATEGY**

**IFI Paris Alignment<sup>7</sup> is an emerging opportunity to integrate methane abatement evaluation and tracking into existing climate investment methodologies and strategies of MDBs and DFIs.** It offers the opportunity for IFIs to enhance their lending practices to align with and effectively support global development and climate goals by embedding methane abatement in their investment strategies and climate plans. Targeting methane abatement by formally including evaluation and tracking into IFI climate strategies can yield tremendous impact for these institutions, which increasingly have integrated climate and development mandates.

While IFIs are major providers of climate finance, methane is often not prominent in their climate agendas. Of the ten MDB signatories of the Joint MDB Methodology for Climate Finance, five make mention of methane abatement's climate importance with four explicitly stating support for methane abatement initiatives in their strategies. Just two have explicitly integrated methane abatement as a criterion for project financing activities:

- The European Investment Bank has, in accordance with the E.U. Taxonomy, integrated methane into its technical criteria for climate mitigation for the selection of projects related to biogas, biofuel, and anaerobic digestion of bio-waste, landfill gas capture, anaerobic digestion in sewage sludge (EIB, 2021).
- The Asian Infrastructure Investment Bank has made limiting methane emissions through best practices a key condition for investing in natural gas projects. It has also supported initiatives aiming to multiply national methane abatement policies and regulatory frameworks, as well as collaborative efforts for the reduction of routine gas flaring and methane leakages (AIIB, 2023).

Five of the ten MDBs do not mention methane in their climate strategies.<sup>8</sup> To step up impact, **all MDBs should integrate methane abatement related project evaluation and tracking into existing climate investment methodologies and strategies.**

For instance, institutions could integrate lifecycle emissions assessments as part of due diligence for any ongoing natural gas generation projects and include support for methane abatement measures as part of financing packages. While phasing out oil, coal, and natural gas as soon as possible is critical to achieving the pathway to keep global warming under 1.5°C, the global energy supply will continue to rely on fossil fuels during the transition. Methane abatement measures can significantly mitigate near-term warming from fossil fuels during power generation. Integrating methane evaluation and tracking formally into investment and climate strategies can help IFIs identify such high-impact investment opportunities.

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<sup>7</sup> MDBs and many public development banks are working on developing and implementing approaches to aligning investment with the goals of the Paris Agreement. Further details are available [here](#).

<sup>8</sup> CPI's review found that the following five MDBs' strategies did not mention methane: Islamic Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, New Development Bank, Council of Europe Development Bank. This analysis does not account for any operational or investment practices/strategies that are not stated in publicly available strategies.

IFIs should build on existing climate mitigation reporting methodologies (e.g., the Joint MDB methodology on climate mitigation finance and IFI Framework for greenhouse gas accounting) to further define methane mitigation activities in mitigation taxonomies and tracking of methane emissions separately from other gases.

As an important first step, IFIs can screen their portfolios to determine what percentage of investments supported or have the potential to support methane abatement. For example, the World Bank conducted a screening of its portfolio to assess how short-lived climate pollutants (SCLPs), including methane, were integrated into its investment activities over the period FY2007-12 (CCAC & World Bank, 2013). The review found that over the period the World Bank invested USD 3 billion per year in activities where SCLP reduction could have been integrated. Screenings such as these, especially if tracked and evaluated at a granular sectoral and region/country level, can help IFIs identify gaps and opportunities in their portfolios to prioritize and integrate methane abatement. Following their SCLP screening, the World Bank developed accounting methodologies to assess methane and hydrofluorocarbons on a project-level basis.

### **3.2.3 DEEPEN INVESTMENT OPPORTUNITIES**

**Given the significance of the methane abatement finance gap, concessional finance is essential for facilitating larger flows** through innovative financial instruments, such as blended finance, risk-reduction mechanisms, or capital market instruments (i.e., green bonds). Mechanisms such as guarantees, or first-loss facilities can reduce risks for private investors and catalyze private finance.

IFIs can provide concessional finance for methane abatement projects and technologies in developing countries and hard-to-abate areas, such as enteric fermentation. They can also target projects that would not be undertaken by the private sector, such as reducing emissions in abandoned mines or landfills.

Box 3 gives examples of ways to target financing for effective methane abatement technologies. These and other innovative models can be across sectors such as: methane capture in agricultural processes, landfill, and wastewater treatment, LDAR systems, and improvements to livestock feed and management.

#### **Box 3: Examples of innovative IFI finance**

The World Bank Group's Pilot Auction Facility for Methane and Climate Change Mitigation (PAF), developed with support from the Climate and Clean Air Coalition (CCAC), used a pay-for-performance model to encourage methane abatement (World Bank, n.d.). The PAF held two auctions specific to reductions of methane emissions from landfill, animal waste and wastewater sites. The model allowed for risk sharing between the private and public sector by guaranteeing a price for emission credits, paid out once emissions reductions were verified, thereby encouraging companies to invest in methane abatement (World Bank, n.d.).

Methane capture services, a model deployed to control methane emissions in hydropower production, is another innovative instrument that IFIs could support or deploy to unlock further investment. Methane Capture Service is an instrument led by impact-focused companies Bluemethane and Open Hydro in Brazil. This first-of-its-kind capture-as-service structure promotes methane capture in the turbinated waters of hydroelectric plants in the tropics to produce clean electricity and carbon credits. The mechanism is expected to avoid 6.8 million tons (CO<sub>2</sub>e) of methane emissions per year; equivalent annual emissions of 1.5 million automobiles. The servitization model enables hydropower operators to adopt new technologies without incurring the risks of implementing them themselves. This mechanism is expected to use USD 6.5 million in grants for its proof of concept, and USD 54 million in commercial and concessional debt for pilot implementation (The Lab, 2022).

### 3.3 PRIVATE METHANE ABATEMENT FINANCE

Private sector actors are essential to closing the methane abatement finance gap, including corporate emitters and private financial institutions (FIs) as lenders. In 2021/22 private finance represented the largest proportion (70%) of methane abatement flows, yet many opportunities remain to increase investment.

Private sector action on methane can be driven by government regulation and incentives. However, there are also numerous opportunities for voluntary action to advance methane abatement finance such as incorporating methane emission reduction targets in net zero pledges and measuring methane emissions in value chains. Investment in methane abatement is high-impact and cost-effective for private actors seeking to take climate action, and many solutions can be implemented at no net cost. Some solutions, like capturing methane gas from fugitive emissions in oil and gas operations, even present business opportunities.

A list of intervention opportunities for corporate emitters and private FIs are shown in Table 4.

**Table 4:** Opportunities for corporates and private FIs to advance methane abatement finance

Priority Area	Recommended actions
Embed methane abatement in strategy	Incorporate methane within net zero targets
Identify investment opportunities	Prioritize methane abatement in investment strategies and lending practices
Improve capacity and transparency of MRV	Measure methane emissions across value chain

#### 3.3.1 EMBED METHANE ABATEMENT IN STRATEGY

Few private sector actors have incorporated methane into net zero pledges or strategies. Given methane’s short-term warming impact, **specific interim, near-term abatement targets are critical, particularly for corporations with high methane emissions.** Private companies do not need to wait for government incentives and regulations to make commitments, especially given the cost effectiveness of many methane abatement actions.

Some notable efforts in the private sector indicate increased interest in methane abatement (see Box 4).

**Box 4: Examples of private sector methane abatement commitments**

The Oil and Gas Climate Initiative launched the Aiming for Zero Methane Emissions Initiative in 2022 (OGCI, 2022). Signatories including ExxonMobil have pledged to reach “near zero” methane emissions from their operated assets by 2030. The initiative does not quantify “near zero” emissions, however, and leaves implementation and specific targets up to each signatory (OGCI, 2022). More concrete action plans for methane abatement are needed to support the initiative in creating measurable impact.

In January 2023 food and dairy company Danone announced its intention to achieve a 30% reduction in methane emissions from their supply chain by 2030 (Danone, 2023a). Danone is also the first corporate sponsor of the Global Methane Hub’s Enteric Fermentation R&D Accelerator, and will support research for mitigating and measuring livestock methane emissions (Danone, 2023b).

### 3.3.2 IDENTIFY INVESTMENT OPPORTUNITIES

**Private investors can prioritize methane abatement in investment strategies and lending practices, as well as engage with methane-intensive investees for action to reduce emissions.** The IEA reports that the oil and gas industry received USD 780 billion on annual average over the period 2016-2022 from the world's 60 largest investment and commercial banks (IEA, 2023b) but methane abatement financing activities are unclear. There are therefore many opportunities for private FIs to link financing with methane abatement goals. They can prioritize lending to methane abatement projects or set minimum standards for lending based on methane control or monitoring. For example, they can link securities to performance on sustainability goals like methane abatement (IEA, 2023a). In this way, private FIs can not only increase flows for methane abatement, but also engage with their investees to take action to reduce methane such as by joining industry partnerships and reporting frameworks or setting credible, time bound methane reduction action plans.

### 3.3.3 IMPROVE CAPACITY AND TRANSPARENCY OF MRV

To meet methane abatement commitments, **corporate actors should develop methodologies for accounting for methane emissions throughout their value chains, and report transparently on the methane emissions from their operations.** A recent study by EDF (2023) finds that US corporate methane emissions could be underreported by a factor of 10 and the discrepancy could be higher outside the United States. Corporates can also collaborate with governments to align and establish transparent methodologies (see also Section 3.1).

Operators should report transparency on Scope 1 methane emissions, as well as emissions exposure from purchased energy (Scope 2) and through value chains (Scope 3). They can also engage in dialogues with actors across their value chains to report and set targets to reduce methane emissions. For instance, companies can opt to buy electricity only from suppliers that have implemented methane abatement measures to encourage change.

In addition to transparently reporting emissions, **corporate actors should also disclose capital expenditure on methane abatement.** For example, those in the oil and gas sector could include targets for investment in LDAR systems as part of investment goals, and report on progress.



## 4. CONCLUSION

Methane has recently gained more prominence on the climate agenda, offering a critical opportunity to take meaningful action towards closing the methane abatement finance gap.

This briefing presents a broad overview of opportunities, and advocates increasing financing in the three highest methane-emitting sectors: AFOLU, waste, and fossil fuels. Solutions to abate methane in these sectors already exist and, in many cases, can be implemented cheaply and quickly. Recommendations presented in this briefing aim to address key barriers to finance.

Despite the impact these solutions could have on mitigating near-term warming, as evident in CPI's Landscape for Methane Abatement Finance, financing for methane abatement remains extremely low. This briefing aims to spark a discussion among decision makers in both the public and private sectors about the importance and feasibility of methane abatement and empower stakeholders to act keeping the priorities identified herein in mind.

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