

# AFRICATALYST

## Methane Abatement in Africa: The role of Multilateral Development Banks



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Research Paper on

# **Methane Abatement In Africa: The Role Of Multilateral Development Banks <sup>1</sup>**

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## EXECUTIVE SUMMARY

Amid rising methane emissions across Africa and limited financing solutions to address this trend, the role of multilateral development banks (MDBs) is becoming increasingly critical in meeting climate goals and the Paris Agreement. Despite methane's significant reduction potential at relatively low cost, it receives only about 1% of global climate funding (approximately \$13.7 billion in 2021/2022 compared to an annual requirement of \$48 billion by 2030), with a negligible share allocated to Africa. This underfunding reflects the limited focus of international climate finance institutions and MDBs on methane abatement projects. This study examines the sources of methane emissions, the importance of their reduction, and the role MDBs should play in significantly reducing methane emissions in Africa.

### Sources of Methane Emissions and Associated Risks

Methane emissions in Africa originate primarily from three sectors: agriculture (including livestock) accounts for 50.59%, followed by the energy sector at 34.19%, and waste at 15.17%. These emissions are concentrated in a small number of countries, with 19 nations responsible for 80% of total emissions, highlighting significant disparities across the continent.

Methane emissions pose one of the greatest threats to both the environment and human health. With a global warming potential 80 times greater than carbon dioxide, methane contributes to poor air quality, respiratory diseases, and exacerbates climate impacts

such as altered rainfall patterns, floods, and heatwaves.

### MDB Potential in Addressing Methane Emissions in Africa

Our research suggests that MDBs hold significant potential to mobilize financing for methane reduction projects across Africa. Several pathways can help achieve this:

- 1. Strengthening Policy and Regulatory Frameworks:** Few African nations have developed national strategies to mitigate methane emissions, reflecting a critical gap in political and regulatory preparedness. MDBs could support capacity-building for the development and implementation of methane abatement policies, aligned with the Long-Term Low Emission Development Strategies (LT-LEDS) currently under development in many African countries.
- 2. Providing Technical Assistance and Training:** African nations often lack the technical capabilities to map and quantify methane emissions or identify high-impact mitigation projects. MDBs can support project preparation by establishing systems for data collection and methane monitoring, including satellite and drone-based remote sensing. Additionally, MDBs could facilitate peer-to-peer learning and promote international best practices in methane abatement.
- 3. Boosting Financing for Methane Action:** MDBs, with their development mandates, can mobilize substantial financial resources at lower costs

for methane abatement projects. By mainstreaming traditional blended finance tools and exploring innovative solutions such as methane abatement bonds and debt-for-climate swaps, MDBs can play a pivotal role in scaling up financing for methane mitigation.

**4. Enhancing Stakeholder Collaboration:** Effective methane reduction requires collaboration between MDBs, regional development banks, governments, private sector, and civil society. MDBs can foster partnerships that focus on subsidies, technical assistance, and policy advisory services, while mobilizing resources for methane abatement efforts.

**Proposals and Recommendations for MDBs in Reducing Methane Emissions**

**1. Tariff Regulation for Methane Emissions in the Energy Sector:** Regulatory measures, whether monetary or commercial, can swiftly reduce methane emissions in sectors like oil and gas. These measures not only lower emissions but also generate revenue from recovered methane, which can be reinvested in environmental projects. MDBs should support countries by:

- Understanding the legal and policy context.
- Characterizing the energy sector and developing national emission profiles.
- Building regulatory capacity and engaging stakeholders.
- Supporting policy design, enforcement, and periodic review.

**2. Operationalizing Local Carbon Markets:** Africa currently utilizes only 2% of its annual carbon credit potential, with most credits concentrated in a few countries. MDBs can play a catalytic role in establishing local carbon markets, mobilizing financial resources, and expanding market participation.

**3. Mobilizing Additional Financing Through MDB Capital Adequacy Framework (CAF) Reforms:** Ongoing reforms to modernize MDBs’ CAFs present an opportunity to secure additional resources for methane abatement. Constructive engagement with rating agencies is essential to retain MDBs’ AAA ratings while enhancing their capacity to support methane mitigation efforts.

**4. Developing a Pipeline of Methane Finance Projects:** Given that 19 countries account for 80% of Africa’s methane emissions, MDBs should focus on building a project pipeline targeting these high-emitting nations. MDBs must also work with governments and civil society to raise awareness about methane risks and mitigation opportunities.

**5. Allocating Local Currency Finance for Methane Projects:** Securing local currency finance for methane abatement is critical to reducing credit costs in countries facing high foreign exchange volatility. MDBs should assist African nations in mitigating currency risks and promoting stable local financial systems.

**6. Providing Patient Capital and Increasing Concessional Loans:** As long-term investors, MDBs are well-positioned to offer “patient” capital with extended maturities, making methane projects more financially viable. MDBs should also enhance concessional financing options to support less commercially attractive projects through mechanisms like first-loss guarantees.

**7. Strengthening Collaboration and Partnerships:** To achieve substantial methane emission reductions, MDBs must foster partnerships with local stakeholders and other development institutions. Pooling efforts and creating synergies across sectors, including agriculture, energy, and waste, will be key to success.





## ■ INTRODUCTION

**M**ethane emissions from human activities account for about one-fifth of global greenhouse gas emissions. Since 1990, African emissions have increased annually by approximately 2%, with the continent now responsible for around 14% of global methane emissions (Sembene et al., 2023). This increase is largely attributed to the continent's growing fossil fuel production and consumption. Several new oil and gas-producing countries, such as Senegal and Mauritania, will soon export their first barrels of oil and gas. Additionally, Niger is set to expand its oil production with the construction of a new pipeline passing through Benin. Similar projects are underway in Uganda, Tanzania, and Kenya, while significant discoveries have been made in Mozambique and Côte d'Ivoire.

The rising methane emissions pose significant risks to both the environment and human health. Methane is a potent greenhouse gas (GHG), with a warming potential 80 times greater than carbon dioxide over a 20-year period (Foster et al., 2021). This trend has serious consequences for global warming and, in turn, for the economic and social stability of developing countries, particularly those in Africa, which are highly vulnerable to the impacts of climate change and less prepared to cope with them.

Several studies suggest that reducing methane emissions is one of the quickest and most cost-effective ways to slow global warming. Yet, methane has received little attention from donors, international financial institutions, and multilateral climate funds. As of 2021/2022, only 1.08% of global climate funding—roughly \$13.7 billion—has been

allocated to reducing methane emissions, despite total global climate funding reaching \$1.27 trillion during the same period (CPI, 2023a; CPI, 2023b). The energy sector, which holds the greatest potential for methane reductions, received less than 1% of that funding. Given the limited financial resources of many African countries, it is imperative to find sustainable solutions that support the transition to more sustainable energy systems and eco-friendly production and consumption models.

In this context, Multilateral Development Banks (MDBs) must play a central role in developing mechanisms, practices, and innovative instruments for methane abatement. Therefore, this report seeks to explore how MDBs can enhance their effectiveness in addressing methane emissions. Specifically, the report investigates the barriers MDBs face in methane reduction efforts and explores how these institutions can serve as catalysts for initiatives that reduce emissions, facilitate cooperation, and encourage knowledge sharing among nations.

This report is divided into three sections, offering potential solutions and recommendations. The first section discusses the sources of methane emissions, focusing on sectoral, geographic, and country-level breakdowns. The second section emphasizes the environmental and health impacts of reducing methane emissions. Finally, the third section analyzes the role of MDBs in reducing methane emissions, outlining their potential contributions, current initiatives, challenges, and opportunities for collaboration.



# 1 Sources of Methane Emissions in Africa and the Importance of Reducing Methane Emissions

Methane emissions in Africa stem from various sectors, regions, and countries, providing insight into the role MDBs can play in each emission sector.

## 1.1. Methane Emissions

### 1.1.1. Sources by Sector

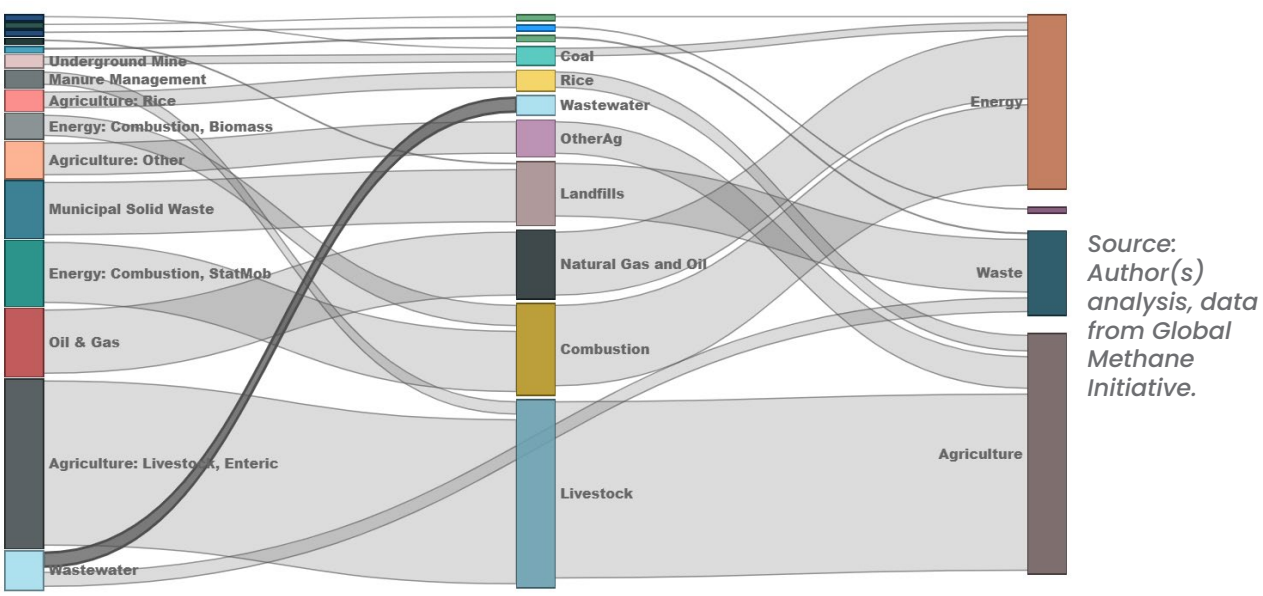
Data from the Global Methane Initiative indicate that methane emissions in Africa originate from multiple sources<sup>2</sup>. The primary source is livestock, with enteric fermentation from ruminants (such as cattle, sheep, goats, and buffalo) responsible for approximately 37.17% of total emissions in 2022. Africa is home to a vast livestock population, with around 506 million goats, 419 million sheep, and 381 million cattle spread across the continent<sup>3</sup>. As the demand for food increases due to population growth, these emissions are expected to rise further.

Emissions from oil and gas operations are also significant, accounting for 14.28%

of total methane emissions in 2022. With about fifteen oil-producing countries and ten natural gas producers on the continent, the oil and gas sector plays a key role in methane emissions. Recent discoveries in countries such as Senegal, Mauritania, Côte d'Ivoire, Tanzania, Uganda, Kenya, and Mozambique are expected to increase methane emissions in the medium to long term.

In addition to these two major sources, methane emissions from combustion and municipal solid waste are notable, representing 13.61% and 11.79% of total emissions, respectively. Other sources include rice production, manure management, mine combustion, liquid waste, and landfill emissions (see Figure 1).

Figure 1 : Methane emissions by categories, sources, and sectors, 2022



<sup>2</sup> Data used in this paper come from the Global Methane Initiative (GMI). These are projected data that record emissions from human activities.

<sup>3</sup> Our world in data: Release date December 2023. Last visit 17.05.2024



Methane emissions can be categorized into various sources, including livestock emissions from enteric fermentation and manure management, emissions from combustion (such as biomass burning), and emissions from landfill sites (municipal solid waste and industrial process waste). Other sources include emissions from coal production, rice cultivation, liquid waste, and waste from other industrial processes. These categories help identify the primary methane-emitting sectors, which can be divided into four main sectors (Figure 2):

**1. Agriculture:** This sector, which includes emissions from livestock, rice production, and other agricultural activities, is

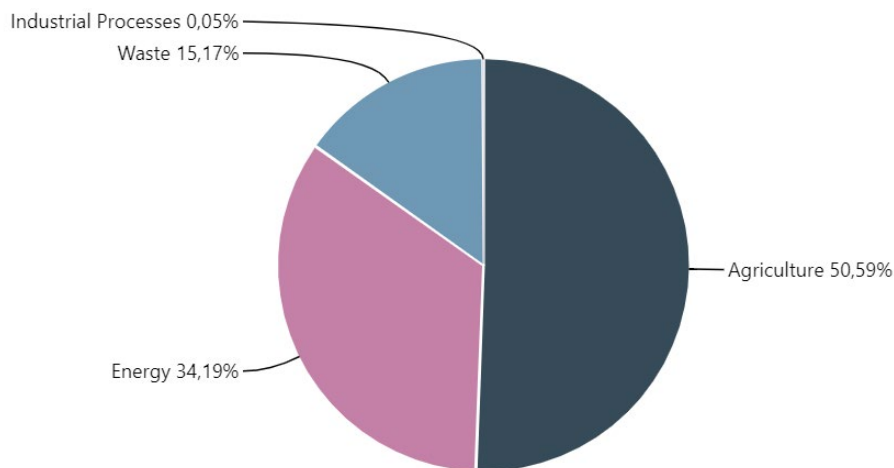
the largest contributor, accounting for approximately 50.59% of Africa’s total methane emissions.

**2. Energy:** Responsible for 34.19% of total emissions, the energy sector includes methane released from oil, gas, and coal operations, as well as emissions from combustion processes.

**3. Waste:** This sector contributes 15.17% of methane emissions, primarily from landfill sites and waste management practices.

**4. Industrial Processes:** The smallest contributor, industrial processes account for only 0.05% of total methane emissions.

Figure 2: Methane (CH4) emissions in Africa by sectors, 2022



Source: Author(s) analysis, data from Global Methane Initiative.

### 1.1.2. Sources by Region

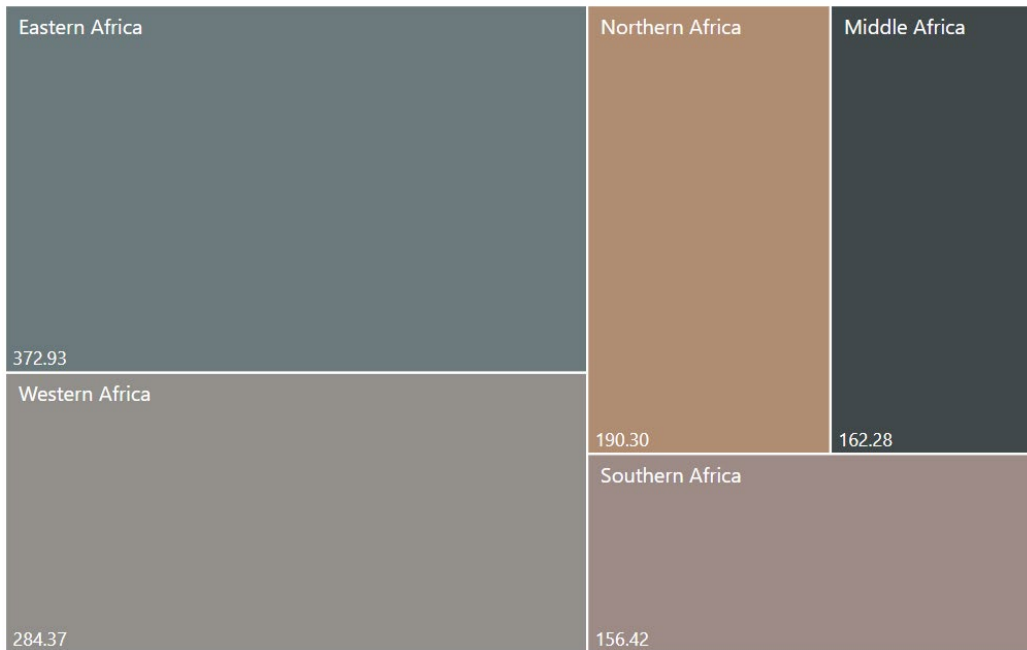
Most methane emissions in Africa are concentrated in the eastern region, which accounts for 31.97% (372.93 MMTCO<sub>2</sub>e) of the continent’s total methane emissions. This is followed by the western region at 24.38% (284.37 MMTCO<sub>2</sub>e) and North Africa at 16.31% (190.30 MMTCO<sub>2</sub>e). The central and southern regions contribute nearly the same amount, with 13.91% (162.28 MMTCO<sub>2</sub>e) and 13.41% (156.43 MMTCO<sub>2</sub>e) of emissions, respectively (Figure 3).

The high emissions in East Africa are largely attributed to its extensive livestock

population, which comprises approximately 50% of the total livestock<sup>4</sup> on the continent. Several oil and gas producers are also located in this region, contributing to the methane output. Similarly, West Africa is home to significant oil and gas operations as well as large livestock herds, resulting in substantial methane emissions. In North Africa and Central Africa, emissions stem primarily from oil and gas operations and the agricultural sector, while Southern Africa’s emissions are mostly linked to agriculture and waste management, with a smaller share from energy and industrial processes (Figures 3 and 4).

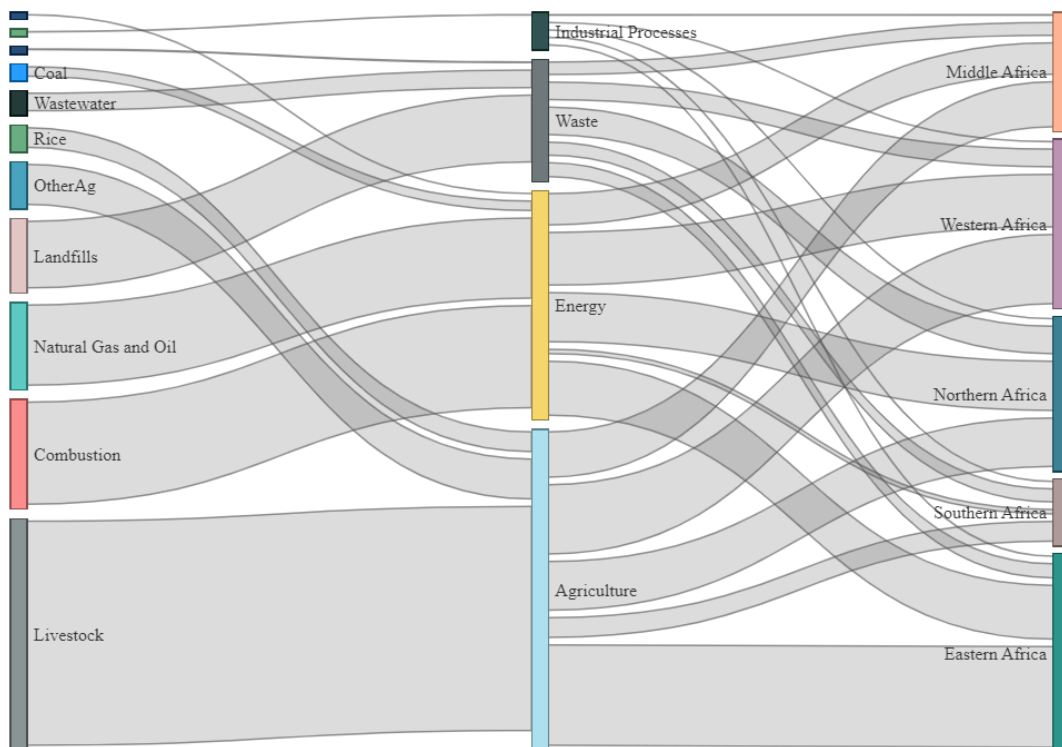
<sup>4</sup> <https://dai-global-developments.com/articles/improving-livestock-markets-to-generate-economic-growth-and-resilience-in-east-africa/>

Figure 3: Emissions of methane by African regional area, 2022



Source: Author(s) analysis and data from Global Methane Initiative

Figure 4: Emissions by regional area and sectors



Source: Author(s) analysis, data from Global Methane Initiative

**1.1.3. Sources by Country**

An analysis of methane emissions by country reveals disparities, classifying countries into four categories of emitters using the Natural Breaks Jenks Classification method: micro-emitters, small-emitters, meso-emitters, and large-emitters.

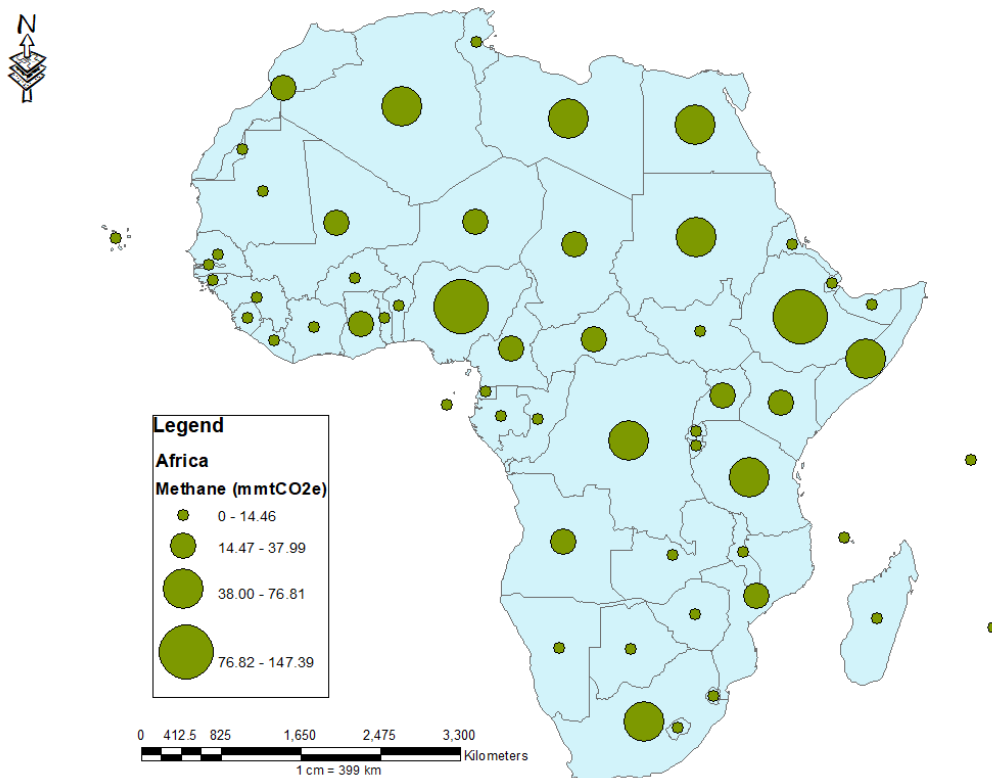
- **Micro-emitters:** These countries emit less than or equal to 15 MMTCO<sub>2</sub>e. This group consists of 33 countries: Zambia, Burkina Faso, Zimbabwe, Senegal, Guinea, Malawi, Equatorial Guinea, Cote d'Ivoire, Namibia, Madagascar, Tunisia, South Sudan, Liberia, Mauritania, Benin, Botswana, Eritrea, Sierra Leone, Togo, Rwanda, Lesotho, Republic of Congo, Mauritius, the Gambia, Eswatini, Guinea-Bissau, Burundi, Gabon, Djibouti, Comoros, Cape Verde, Seychelles and Sao Tomé and Príncipe.
- **Small-emitters:** Countries in this category emit less than 38 MMTCO<sub>2</sub>e. This group includes Kenya, Chad, Cameroon, Uganda, Niger, Angola, Kenya, Chad,

Cameroon, Uganda, Niger, Angola, Ghana, Central African Republic, Mali, Morocco and Mozambique, totaling 11 countries.

- **Meso-emitters:** Seven countries fall into this category, including Libya, Algeria, South Africa, Tanzania, Egypt, the Democratic Republic of Congo, and Sudan.
- **Large-emitters:** Ethiopia and Nigeria are classified as large emitters, with emissions of 116.90 MMTCO<sub>2</sub>e and 147.38 MMTCO<sub>2</sub>e, respectively (Figure 5).

This distribution highlights that a significant portion of Africa’s methane emissions is concentrated in a small number of countries. Sembene et al. (2023) showed that 80% of methane emissions in Africa come from just 19 countries. Consequently, actions to reduce methane emissions should prioritize these countries, as they offer the greatest potential for reductions. Therefore, MDBs and other international institutions must focus their efforts on these countries to achieve meaningful reductions in African emissions.

Figure 5: Emissions by countries



Source: Author(s) analysis, data from Global Methane Initiative.

## 1.2. Importance of Addressing Methane Emissions

Reducing methane emissions presents a major opportunity to improve human health and limit the presence of harmful particles in the atmosphere.

### 1.2.1. Environmental Impact

Methane plays a significant role in environmental degradation and global warming. It is responsible for approximately 30% of global warming since the pre-industrial era<sup>5</sup>. Methane also contributes to the formation of tropospheric ozone (commonly known as smog), which is a powerful greenhouse gas and atmospheric pollutant. Smog forms when sunlight reacts with methane, volatile organic compounds, and nitrogen oxides—substances that are harmful to human health.

In addition, methane has a global warming potential 80 times greater than that of carbon dioxide over a 20-year period, making it one of the most dangerous greenhouse gases. To stay on the 1.5°C trajectory outlined in the Paris Agreement, global methane emissions must be reduced by 45% by 2030 (UNEP & CCAC, 2021). Achieving this reduction would prevent a warming of almost 0.3°C by 2045 and complement long-term climate mitigation efforts. Furthermore, deeper cuts in methane emissions by 2050 could significantly limit peak global warming and support the goals of the Paris Agreement (Collins et al., 2018; van Vuuren et al., 2011).

Methane-induced warming also affects precipitation patterns, resulting in more frequent and severe droughts, as well as increased flooding during rainy seasons. This disruption to agricultural cycles and water availability has serious consequences for fragile ecosystems, such as savannahs and tropical forests, which are highly vulnerable to climate change. This leads to the loss of biodiversity essential to ecosystem services, including pollination, pest regulation, and soil fertility.

5 UNEP

6 WHO, 2018. Last visit, 13.07.2024.

### 1.2.2. Health Impact

Methane emissions, particularly through their contribution to tropospheric ozone, are responsible for approximately one million premature deaths each year due to respiratory illnesses (Malley et al., 2017). Africa is especially vulnerable to these health impacts, as many African countries lack adequate waste management systems and are exposed to high levels of methane-emitting sources such as waste and manure.

Furthermore, the drop in agricultural yields caused by rising temperatures and changing rainfall patterns will exacerbate food insecurity, particularly among small-scale farmers who depend on agricultural production for their livelihoods. Vulnerable populations—including children, the elderly, and individuals with pre-existing respiratory conditions—are at particular risk. According to the World Health Organization (WHO), air pollution is responsible for over 600,000 deaths of children under five globally<sup>6</sup>, with a significant proportion occurring in Africa.

Methane emissions also contribute to extreme weather events, such as heatwaves, which are associated with higher rates of heatstroke, dehydration, and aggravated cardiovascular and respiratory conditions. Moreover, climate change, driven by methane emissions, alters the habitats of disease vectors like mosquitoes, leading to increased transmission of diseases such as malaria, dengue, and yellow fever. The WHO estimates that climate change could expose millions more people in Africa to malaria. Additionally, more frequent droughts and floods, exacerbated by climate change, affect water quality and availability, increasing the spread of waterborne diseases like cholera, dysentery, and typhoid.





## 2

# The Role of Multilateral Development Banks (MDBs) in Reducing Methane Emissions

## 2.1. The Potential for MDBs to Address Methane Emissions in Africa

MDBs have several key roles to play in addressing methane emissions across the African continent. Their potential to support methane abatement stems from their capacity to offer policy and regulatory support, build technical capacity, mobilize financing, and foster partnerships across sectors.

### 2.1.1. Policy and Regulatory Support

Africa's policy landscape for methane abatement remains largely underdeveloped. Although several African countries have pledged to reduce methane emissions in their Nationally Determined Contributions (NDCs) and joined the Global Methane Pledge (GMP), concrete steps to address methane emissions have been limited. Existing policies have often emerged from initiatives like the Climate and Clean Air Coalition (CCAC), which has helped some countries develop National Action Plans to mitigate short-lived climate pollutants (SLCPs), including methane.

Currently, only a few African countries, such as Côte d'Ivoire, Ghana, Nigeria, and Togo, have formal SLCP plans<sup>7</sup>. For example, Côte d'Ivoire has set a target to reduce methane emissions by 34% by 2030, while Ghana aims for a 56% reduction by 204 according to the PAM ++ scenario<sup>8</sup>. Nigeria's SLCP plan seeks a 50% reduction in methane emissions from the oil and gas sector and a 50% recovery of

methane from landfills by 2030. Togo's target is to reduce methane emissions by 56% by 2040. Given the limited action taken thus far, MDBs can play a crucial role in extending such initiatives to other African nations, helping them integrate methane reduction targets into national development strategies and policies.

Furthermore, many African countries are currently developing their Long-Term Low Emission Development Strategies (LT-LEDS), which would benefit significantly from technical assistance provided by MDBs. By supporting the creation and implementation of these strategies, MDBs can help African nations meet their GMP commitments and reduce methane emissions while simultaneously improving public health outcomes.

### 2.1.2. Capacity Development

MDBs are well-positioned to provide the technical assistance needed to tackle methane emissions. The World Bank's Climate Change and Development Reports (CCDRs), which diagnose countries' climate change challenges, help identify the types of investments needed for climate action and technical assistance. To date, 24 African countries have completed a CCDR. MDBs could now focus on transforming these diagnoses into actionable projects and extending methane abatement efforts to other regions by strengthening partnerships with organisations working in this area.

<sup>7</sup> Climate and Clean Air Coalition (CCAC)

<sup>8</sup> The PAM ++ scenario corresponds to the implementation of additional measures focused on the SLCP.

Additionally, MDBs can help set up data collection systems and methane Monitoring, Reporting, and Verification (MRV) frameworks. These systems could include ground-based, drone, and satellite monitoring technologies and standardize methane emissions accounting across national and provincial greenhouse gas inventories; production and organisation of data verification, spot checks and field inspections<sup>9</sup>. MDBs could also facilitate peer-to-peer learning and knowledge-sharing among African countries to promote best practices for methane abatement.

### 2.1.3. Financial Assistance

MDBs are in a strong position to mobilize the necessary financing for methane abatement, including through lending, grants, and guarantees. In recent years, many MDBs have expanded their mandates to reflect a

growing commitment to delivering global public goods, including climate action.

MDBs’ ability to mobilize financial resources stems from their unique financial models, which emphasize maintaining AAA credit ratings from major agencies like Fitch, Moody’s, and Standard & Poor’s. As demonstrated by MDB financial data in 2020, these institutions collectively manage substantial assets—totaling \$1,972 billion—that could be leveraged to address development and climate goals (Table 1). To meet the \$48 billion annual funding requirement for reducing methane emissions by 2030, MDBs would need to allocate only 2.4% of their assets. This is feasible given that most MDBs have set clear climate finance targets (see Box 1 for more details on MDBs’ climate finance commitments for 2022).

**Table 1:** Financial situation of majors MDBS

Indicators	Development Assets	Total Assets	Shareholders’ Equity	Liquid Assets Ratio*	Bonds Outstanding**
MDB	2020/BN\$	2020/BN\$	2020/BN\$	2020/%	2021/BN\$
<b>AfDB</b>	34	51	11	32	35
<b>ADB</b>	133	272	53	18	134
<b>AIIB</b>	8	32	20	73	19
<b>CAF</b>	29	47	13	31	26
<b>CDB</b>	1	2	1	30	1
<b>EBRD</b>	41	85	22	45	56
<b>EIB</b>	552	678	90	19	565
<b>IDB</b>	106	152	34	26	113
<b>IBRD</b>	211	297	40	29	260
<b>IDA</b>	168	199	168	18	28
<b>IDB Invest</b>	4	6	2	33	2
<b>IFC</b>	47	96	25	48	56
<b>IsDB</b>	25	35	13	30	22
<b>NDB</b>	7	19	10	61	14
	1,366	1,972	503	35	309

Sources: Boosting MDBs’ investing capacity. (2022) and Fitch Connect, Standard & Poor’s (S&P) Supranational 2021

\*Liquid assets/adjusted total assets

\*\*Total Long-term funding = senior unsecured debt, subordinated borrowing, covered bonds and other Long-term funding

9 IEA, 2024

MDBs can also secure financing at lower costs and support countries in developing investment programs. Through their established partnerships with developing countries, including those in Africa, MDBs have built substantial experience in mitigation financing. This expertise enables them to advise countries on structuring high-impact environmental projects.

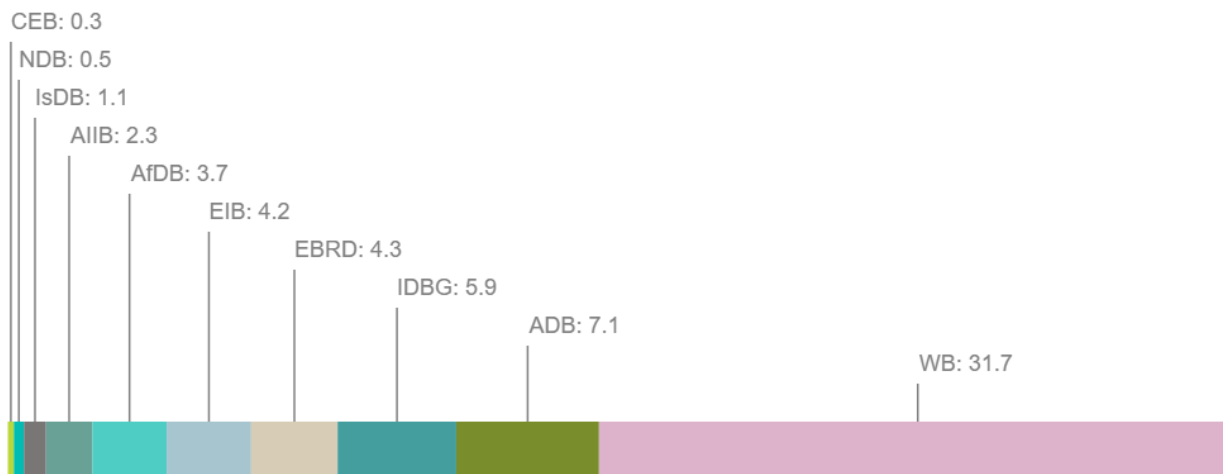
At the 2023 G20 and World Bank-IMF Annual Meetings in Marrakech, MDB leaders

pledged to collaborate on releasing additional resources to meet climate targets through the modernization of their Capital Adequacy Framework (CAF). This reform is expected to mobilize an additional \$300–400 billion over the next decade (AfDB, 2023). Moreover, MDBs can play a crucial role in mobilizing private sector funds, ensuring these resources reach methane abatement projects quickly and effectively.

### Box 1 MDBs Climate Finance Commitments

In recent years, the MDBs have substantially increased their financing for climate action. In 2022, for example, the MDBs claim to have pledged \$99.7 billion to climate action, of which \$60.9 billion (or around 61%) to low- and middle-income economies (LMIEs) versus \$38.8 billion (or around 39%) to high-income economies (HIEs). Most of the funding went to mitigation actions, which accounted for around 63% of commitments to LMIEs, versus 94% for mitigation actions for HIEs. Figure 5 shows the origin of climate financing commitments. The World Bank, with \$31.7 billion, is by far the largest MDB in terms of climate finance commitments, followed by the Asian Development Bank (ADB) with \$7.1 billion and the IDGB with \$5.9 billion. The ERDB, EIB; AfDB, AIIB and IsDB respectively pledged \$4.3 billion; \$4.2 billion; \$3.7 billion. 2.3 billion and \$1.1 billion respectively. Finally, NDB and CEB have pledged \$500 million and \$300 million respectively. Although around \$100 billion has been pledged by the MDBs for the period to 2022, the share committed for Sub-Saharan Africa is still low, at around \$16.33 billion in climate finance pledges. Africa receives climate finance mainly from the African Development Bank (AfDB), the World Bank and to a lesser extent from other MDBs such as the Islamic Development Bank (IsDB), the New Development Bank (NDB), etc. Moreover, CPI (2023a) reports that the Multilateral Development Financial Institutions (Multilateral DFIs), including the MDBs, have spent only about \$1.4 billion on methane emissions reduction objectives over the 2021/2022 period, compared with \$2.8 billion over the previous period, even though the potential exists. Given the large volume of MDB assets, a significant proportion could be devoted to mitigation measures to reduce the global warming that the world is facing.

Figure 6: MDBs' climate finance commitments in low- and middle-income economies, 2022 (in \$ billion)



Data Source: EIB, 2023. 2022 Joint Report on Multilateral Development Banks' Climate Finance

#### 2.1.4. Public-Private Partnerships

Financing methane reduction initiatives also requires strong collaboration between MDBs and the private sector, particularly in the energy sector, which is responsible for a third of Africa's emissions. Given the energy sector's vast potential for methane reduction—at relatively low costs—MDBs can foster partnerships with oil and gas companies to implement measures that reduce methane emissions across the entire energy production and distribution process.

Such partnerships could involve subsidies, technical assistance, and advisory services for policy and regulatory reform. MDBs can also assist in mobilizing resources for companies operating across the African continent. Additionally, MDBs could strengthen existing initiatives, such as those spearheaded by oil and gas companies to decarbonize the energy sector.

For example, the Oil and Gas Climate Initiative (OGCI), which brings together 12 of the world's largest oil and gas companies<sup>10</sup>, aims to align the sector with the goals of the Paris Agreement and achieve carbon neutrality. MDBs could play a role in encouraging additional companies,

including state-owned oil and gas firms, to join initiatives like the Oil and Gas Methane Partnership 2.0, launched by the Climate and Clean Air Coalition (CCAC) and the International Methane Emissions Observatory (IMEO). This would help provide a framework for monitoring and reporting methane reductions and promote transparency in the energy sector.

## 2.2. Current initiatives and projects by MDBs related to methane reduction

While MDBs have played a relatively limited role in reducing methane emissions, there are notable initiatives where they are actively involved.

### 2.2.1. Global Flaring and Methane Reduction Partnership (GFMR)

The Global Flaring and Methane Reduction Partnership (GFMR) is a World Bank initiative launched at COP28, replacing the earlier Global Gas Flaring Reduction Partnership (GGFR), which was established in 2002 at the World Summit on Sustainable Development in Johannesburg. GFMR is a multi-donor trust fund comprising governments, oil companies,

<sup>10</sup> These 12 companies are: Aramco, BP, Chevron, CNPC, Eni, Equinor, Exxon Mobil, Oxy, Repsol, Petrobras, Shell and Total Energies.



and multilateral organizations, all committed to ending routine gas flaring at oil and gas production sites globally and reducing methane emissions from the sector to near-zero levels by 2030<sup>11</sup>.

The partnership provides grants, technical assistance, advisory services for policy and regulatory reform, institutional strengthening, and mobilization of funding to help governments and operators accelerate the deployment of flaring and methane reduction

technologies. As part of its efforts, the GFMR conducted a comprehensive review of the regulatory and legal frameworks for flaring and gas venting in 21 oil-producing countries, including six African nations: Algeria, Angola, Egypt, Gabon, Libya, and Nigeria. This review helped identify the progress made by these countries in preparing regulatory and institutional frameworks to reduce methane emissions in the oil and gas industry.

**Table 2:** Table: Flaring reduction measures in oil and gas industries

	Algeria	Angola	Egypt	Gabon	Libya	Nigeria
Setting targets or limits	Yes	No	No	Yes	No	Yes
Powers conferred on authorities by laws and regulations	Yes	Yes	Yes	Yes	Yes	Yes
Possibility of flaring and discharge in emergencies without prior authorisation	Yes	No	No	No	No	N/A
Ban on flaring and routine discharge	Yes	Yes	No	Yes	Yes	Yes
Obligation to include provisions on the use of associated gases in development plans	Yes	Yes	No	Yes	Yes	Yes
Need for an economic assessment of associated gas projects	Yes	Yes	No	No	Yes	Yes
Prescription of measures and reporting standards	No	Yes	No	No	N/A	Yes
Amend, compensation and monetary penalties for infringement	N/A	Yes	No	Yes	No	Yes
Non-monetary penalties for infringement	N/A	No	No	N/A	N/A	Yes
Technical performance requirements	No	No	No	No	No	N/A
Financial incentives for volume reduction	Yes	Yes	No	No	No	Yes
Commercial incentives for volume reductions	No	No	No	No	No	Yes
Encouraging reductions through regulations at the intermediate and downstream stages	Yes	No	Yes	No	No	Yes

Source: Adapted from GGFR (2022) and World Bank (2022b).

A few countries, particularly Nigeria and Algeria, have made notable progress in methane reduction efforts. However, significant regulatory and legal measures are still needed in Egypt, Gabon, Libya, and Angola. Even in the six countries that have adopted some regulatory and legal frameworks, the effectiveness of these measures remains limited, as methane emissions from the energy sector have not significantly decreased across the continent.

In 2015, the World Bank launched the Zero Routine Flaring by 2030 (ZRF) Initiative, managed by the GFMR Trust Fund. Governments and companies that support

the ZRF initiative commit to ending routine gas flaring in new oil fields and eliminating this practice at existing oil production sites as soon as possible, but no later than 2030. Since the launch of this initiative, 36 governments have signed on, including 10 African countries: Angola, Egypt, Nigeria, Gabon, Cameroon, South Sudan, Morocco, the Republic of Congo, and Niger. Additionally, four African development banks have joined the initiative: the African Development Bank (AfDB), the ECOWAS Investment Bank (EBID), the West African Development Bank (BOAD), and the East African Development Bank (EADB).

11 World Bank Group. Last visit: 30.06.2024

This collaboration demonstrates growing regional support for methane reduction and flaring cessation but highlights the ongoing need for strengthened regulatory frameworks to ensure impactful outcomes.

### 2.2.2. Too Good to Waste Initiative to mitigate methane emissions from waste in Latin America and the Caribbean

The “Too Good to Waste” initiative, launched by the Inter-American Development Bank (IDB) Board of Directors in 2023, represents a significant effort to mitigate methane emissions in solid waste management. Financially supported by the Global Methane Hub and the Aquafund multi-donor fund, this program aims to reduce methane emissions by at least 30% in waste operations financed by the IDB. The initiative aligns with the objectives of the Global Methane Pledge (GMP) and includes several key activities funded through non-reimbursable resources<sup>12</sup>:

- Structuring bankable solid waste management projects with concrete results in methane reduction.
- Generating financial instruments and leveraging revenues for waste management projects.
- Monitoring and verification of methane emissions mitigation.
- and capacity building and knowledge dissemination

The initiative seeks to fund methodologies and technology pilots that improve the measurement and traceability of methane emissions. Additionally, it aims to develop feasibility studies, business plans, and bankable projects, particularly at the subnational level, to mobilize financial resources for waste management efforts. These activities will also involve knowledge generation and dissemination, providing

access to information, and engaging communities to highlight the connection between transitioning to a circular economy and mitigating climate change impacts<sup>13</sup>.

Priority will be given to countries with the highest methane emissions in the waste sector, leading to sustainable and operational waste management projects across the region.

### 2.2.3. Green and Resilient Growth Development Policy Loan: A Built-in Climate Incentives in Uruguay

In November 2023, the World Bank approved its first Development Policy Loan (DPL) for Uruguay, valued at USD 350 million, which includes innovative climate incentives. This loan introduces a groundbreaking feature that allows for a reduction in interest payments based on Uruguay’s verifiable progress towards achieving ambitious climate targets, specifically related to methane emissions in the beef production sector.

Methane from livestock is a major contributor to Uruguay’s greenhouse gas emissions, accounting for 49% of the country’s total emissions. Given Uruguay’s position as one of the top six beef exporters globally, addressing methane emissions in this sector is critical to meeting its climate objectives. Under this pioneering loan, Uruguay has committed to significantly reduce methane emissions intensity per unit of beef produced. The targets are set as follows:

- A reduction of at least 33% in methane emissions intensity between 2025 and 2029.
- A reduction of at least 36% between 2030 and 2034.

These targets are 1% more ambitious than those outlined in Uruguay’s Nationally Determined Contributions (NDCs). If Uruguay achieves these goals, it will benefit from reduced interest payments on the loan<sup>14</sup>:

<sup>12</sup> IADB Website

<sup>13</sup> IDB Website

<sup>14</sup> World Bank

- Meeting the first target will result in a 50-basis point reduction in the interest rate.
- Achieving the second target will lead to a further 100-basis point reduction.
- If both targets are met within the 10-year performance period, Uruguay could save up to \$12.5 million in interest payments over the life of the loan.

Notably, there is no penalty for failing to meet the targets, as the interest rate will remain at standard IBRD terms without a step-up mechanism. This arrangement provides strong financial incentives for Uruguay to pursue and achieve its climate goals while fostering sustainable agricultural practices in the beef sector.

#### 2.2.4. World Bank's Blueprint for Global Methane Reduction

The World Bank is intensifying its efforts to tackle methane emissions through an ambitious "all of methane" strategy, aimed at achieving multiple goals: reducing global warming in the near term, enhancing resilience to climate impacts, and improving the livelihoods of vulnerable populations. As part of this strategy, the World Bank unveiled the **Blueprint for Global Methane Reduction** during COP 28, targeting a reduction of up to 10 million tons of methane emissions.

This comprehensive plan focuses on three key areas:

- 1. Rice Cultivation:** Rice production is a significant source of methane emissions due to the anaerobic conditions in flooded fields. The World Bank aims to support farmers in adopting improved cultivation techniques, such as alternate wetting and drying (AWD), which can reduce methane emissions by up to 40%. AWD allows the soil to dry between periods of flooding, lowering methane production.
- 2. Livestock Operations:** Methane from livestock, particularly through enteric fermentation, is another major contributor to greenhouse gas emissions. The World

Bank will collaborate with farmers to improve livestock nutrition and breed management, potentially cutting methane emissions by up to 30%. This includes optimizing feed quality and breeding animals for higher efficiency and lower methane output.

- 3. Organic Waste Management:** Methane emissions from landfills are also a significant environmental concern. To address this, the World Bank will assist countries in diverting organic waste from landfills to composting facilities or waste-to-energy plants, reducing methane emissions by as much as 80%. This shift not only reduces emissions but also promotes circular economy practices by converting waste into valuable resources.

In addition to these sectors, the World Bank will strengthen partnerships with the private sector to reduce methane emissions across the entire energy value chain. This includes efforts to mitigate methane leaks from oil and gas pipelines, storage facilities, and other critical infrastructure, a long-standing focus of the Bank's climate action in the energy sector.

#### 2.2.5. Global Methane Reduction Platform for Development (CH4D)

The World Bank launched the Global Methane Reduction Platform for Development (CH4D) to support low- and mid-income countries to realise the 'methane triple-wins' of abating emissions, enhancing resilience, and empowering livelihoods. Through partnerships, including with the CCAC Methane Roadmap Action Program (M-RAP), CH4D as a hub for methane abatement will mobilise expertise, affordable technologies, and catalytic finance for methane abatement in the agriculture and waste sectors<sup>15</sup>.

#### 2.2.6. Pilot Auction Facility for Methane and Climate Change Mitigation (PAF)

The Pilot Auction Facility for Methane and Climate Change Mitigation (PAF) is an innovative pay-for-performance mechanism developed by the World Bank Group. Its

15 Global Methane Pledge

primary goal is to stimulate investment in greenhouse gas reduction projects, particularly in developing countries, by leveraging both public and private sector financing while maximizing the effectiveness of public funds. The PAF is designed to demonstrate a cost-effective, results-based approach to climate finance, which incentivizes private sector participation by guaranteeing a floor price on carbon credits<sup>16</sup> through the use of tradable put options.

The PAF completed three auctions to allocate a guaranteed price for future carbon credits in the form of a tradable put option.

- Two auctions (July 2015 and May 2016) addressed methane abatement from landfills, animal waste, and wastewater sites,
- And one auction (January 2017) addressed nitrous oxide emissions from nitric acid (not adipic acid) production.

The PAF allocated up to \$54 million through these auctions, with the potential to abate 20.6 million metric tons of CO2 equivalent. By providing a results-based payment for verified emission reductions, the PAF ensures that public funds are used efficiently and

that private investment is directed towards impactful climate solutions.

Projects participating in the PAF are eligible to generate carbon credits based on established and recognized standards, including:

- The Clean Development Mechanism (CDM)
- The Verified Carbon Standard (VCS)
- The Gold Standard

The PAF’s approach of offering a guaranteed price for emission reductions has proven to be an effective way to incentivize private sector investment in climate mitigation projects, particularly in developing countries. By leveraging public funds in a results-based framework, the PAF has demonstrated the potential for scalable and impactful climate finance solutions.

### 2.2.7. Other MDB-supported initiatives to reduce methane emissions

Table 3 shows some MDB-supported initiatives around the world aimed at reducing methane emissions.

**Table 3:** Other MDB-supported initiatives to reduce methane emissions

Name of Initiative	Partners/Members	Focus areas
<b>Global Methane Initiative (GMI)</b>	Asian Development Bank (ADB), International Financial Corporation, European Bank for Reconstruction and Development, the World Bank	Oil and Gas, Biogas (Agriculture, Municipal Solid Waste, Municipal Waste, Coal Mines)
<b>Global Methane Pledge (GMP)</b>	European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB)	Energy, Waste, Food and Agriculture, Methane plans and policies, Data for Methane Action, and Finance for Methane Abatement.
<b>Climate and Clean Air Coalition</b>	Asian Development Bank (ADB), European Investment Bank (EIB), World Bank, Inter-American Development Bank (IDB)	Agriculture, Energy, Cooling, Waste, National Planning

<sup>16</sup> Pilot Auction Facility (PAF) website

### 2.3. Challenges faced by MDBs in addressing methane emissions and potential solutions

The previous chapter highlighted a range of initiatives developed by Multilateral Development Banks (MDBs) to address methane emissions. While these initiatives

represent important steps forward, they remain insufficient in light of the significant need and the pressing urgency to rapidly reduce methane emissions. In this section, we will examine the key challenges and difficulties faced by MDBs in scaling up their efforts and explore potential solutions to enhance their impact.

**Table 4:** Challenges faced by MDB in addressing methane emissions and solutions

Challenges	<p><b>Risk assessment based on credit rating notably ratings (AAA).</b> These ratings restrict MDBs’ ability to meet development needs and force them to limit loans deemed risky, particularly in borrowing countries facing economic difficulties and climate objectives such as reducing methane emissions in the agricultural and waste sectors.</p>	<p><b>Capital adequacy constraints.</b> One of the constraints faced by MDBs is capital adequacy. Unlike commercial banks, which are subject to standard prudential rules, MDBs are governed by complex regulations because of their greater exposure, which affects their ability to lend in line with their capital adequacy.</p>	<p><b>Insufficient financing mechanisms for climate financing within MDBs, particularly for methane</b></p>	<p><b>Lack of structuring and bankable projects to reduce methane emissions</b></p>	<p><b>Data and Monitoring constraints</b></p>
Solutions	<p>MDBs should consider determining a risk tolerance level based on realistic assessments that better reflect their status and aspirations as development banks, committed to finding solutions to global issues. For this reason, MDBs need to engage in frank dialogue with CRAs to determine an optimal rating level that reflects MDBs’ non-profit objectives.</p>	<p>In line with the recommendations made by the Independent Review of Multilateral Development Banks’ Capital Adequacy Frameworks, there is a need to reform and update the MDBs’ Capital Adequacy Framework so that it is used more effectively to enable MDBs to meet their mandate.</p>	<p>Although most MDBs have made concrete resolutions on commitments to finance climate objectives, few have tools specifically geared towards reducing methane emissions. The reduction of methane emissions therefore needs to be fully integrated into MDBs’ internal financing arrangements.</p>	<p>Methane emission reduction projects are still underdeveloped by project initiators and governments that borrow from the MDBs. This limits the attention given by MDBs to methane emission reduction objectives. The MDBs must therefore use capacity-building mechanisms to present the importance of reducing methane emissions and open calls for projects specifically targeting the reduction of methane emissions in a certain number of sectors such as agriculture, energy and waste.</p>	<p>There is a need for credible and accurate data on the potential for reducing methane emissions, especially in developing countries with limited data collection infrastructures. The MDBs must make efforts on behalf of low-income countries in the form of technical assistance and the reinforcement of data collection equipment so that the potential is clearly identified in methane-emitting sectors.</p>

Source: Author(s) analysis.



### 3

## Proposals and recommendations on the role of MDBs in reducing methane emissions

### 3.1. Tariff regulations for methane emissions in the energy sector

With record profits for most major oil and gas producers in the wake of the 2022 energy crisis<sup>17</sup>, it is imperative that these companies take an active role in addressing the climate crisis. Emissions from gas flaring and fugitive leaks must be subject to stringent regulation in the countries where they operate. A study by the World Bank (GGFR, 2022 and World Bank, 2022) revealed that introducing monetary or commercial measures is an effective and rapid way to reduce methane emissions. To achieve this, technical measures—specifically the establishment of reliable systems for data collection and emission inventories on flaring, venting, and fugitive leaks—are essential. Additionally, implementing effective monitoring and transparency systems would enable oil and gas-producing countries to motivate companies to reduce their methane emissions.

The African Development Bank (AfDB), supported by the World Bank, the International Energy Agency (IEA), and other partners, can provide the technical assistance necessary for countries to establish these regulations and the associated mechanisms. According to the World Bank's GFMR Flaring Data, 27.97 billion cubic meters of gas were

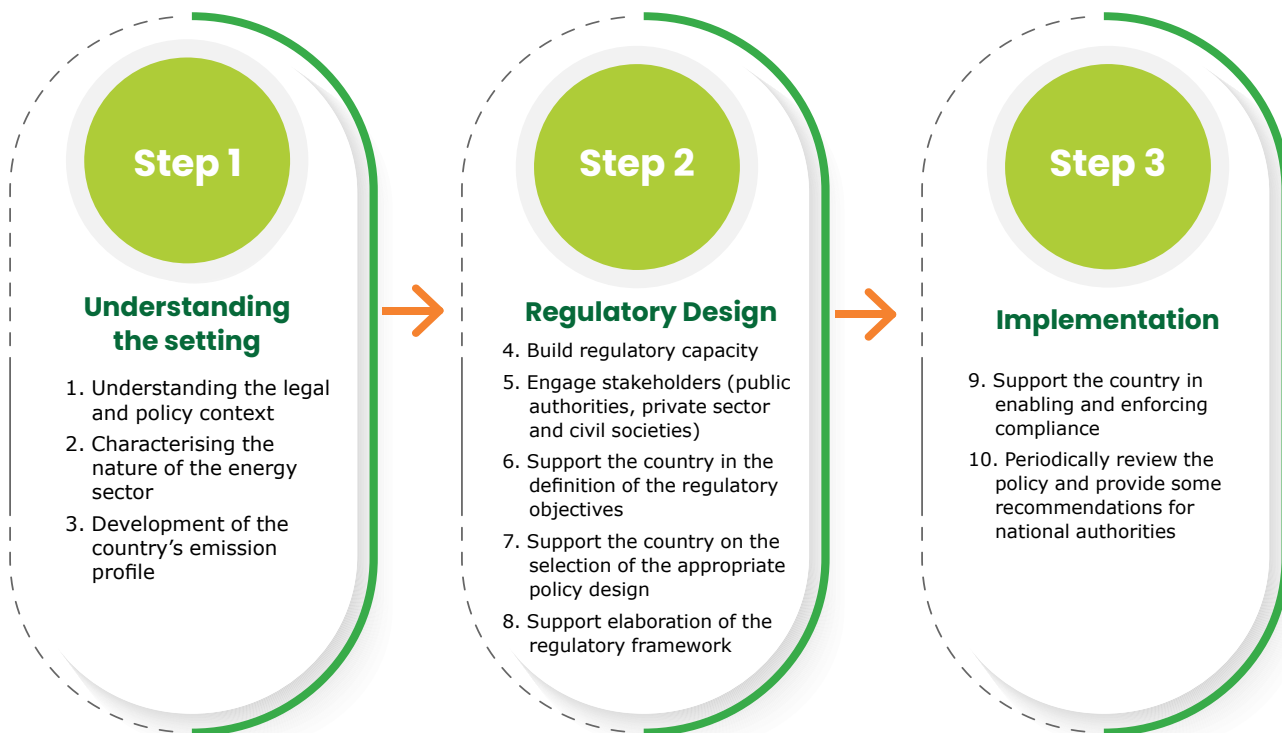
flared from oil and gas fields in Africa in 2023. These regulatory measures have a triple advantage: reducing methane emissions, generating revenue for companies through the sale of recovered gas, and providing countries with additional resources for other environmentally beneficial projects.

Furthermore, these regulations should coincide with the introduction of national methane emissions reduction plans specific to each country. Currently, several African countries lack a clear policy or strategy for reducing methane emissions. The introduction of such regulations in the energy sector offers a significant opportunity for countries to establish a clear framework for reducing emissions. Existing tools, such as the Clean Air Task Force's Country Methane Abatement Tool (CoMAT), can help regulators estimate current emissions and assess the reduction potential of various policy options. Ultimately, a detailed Marginal Abatement Cost Curve (MACC) can guide where reductions can be achieved at the least cost, enabling the prioritization of mitigation options.

The following figure outlines the steps MDBs should take in supporting the development of a regulatory framework that facilitates methane emissions reduction in the energy sector.

17 <https://www.globalwitness.org/en/campaigns/fossil-gas/crisis-year-2022-brought-134-billion-in-excess-profit-to-the-wests-five-largest-oil-and-gas-companies/>

Figure 7: Steps for MDB in supporting the implementation of a regulatory framework



Source: Adapted from *Methane Abatement for Oil & Gas: Handbook for Policymakers (2023)*.

### 3.2. Develop Carbon Markets

The carbon credit market in Africa remains underdeveloped and stagnant, showing little progress in recent years. Initiatives launched under the United Nations Framework Convention on Climate Change (UNFCCC), such as the Clean Development Mechanism (CDM), have not significantly contributed to the development of carbon markets on the continent. For instance, only 3% of CDM-financed projects have been allocated to Africa<sup>18</sup>. Moreover, according to the African Carbon Markets Initiative (ACMI), Africa is currently utilizing just 2% of its annual carbon credit potential<sup>19</sup>, with most carbon credits concentrated in a small number of countries.

This presents a substantial opportunity to revitalize the carbon credit market across Africa. Multilateral Development Banks (MDBs), given their resources and influence on the continent, can play a catalytic role in mobilizing financial resources, developing new customers, and expanding the carbon credit market. Methane reduction projects, particularly in the agricultural and waste

management sectors, are well-suited for this type of market development.

For this revitalization to succeed, MDBs will need to collaborate with local municipalities and existing carbon market initiatives. By working together, they can establish Certified Emission Reduction (CER) or Verified Emission Reduction (VER) certificates, which can be awarded to eligible applicants as financial compensation for their methane reduction efforts. This approach not only incentivizes climate action but also strengthens the market by introducing new participants and creating more opportunities for carbon trading.

The successful revitalization of the carbon credit market in Africa will require a holistic commitment from key stakeholders, including governments, particularly municipal authorities, and the private sector. Ensuring that both public and private sectors are involved will help create an integrated approach that supports the development of a robust carbon market capable of driving significant methane reductions across the continent.

<sup>18</sup> Based on Author(s) calculation. Data source: Institute for Global Environmental Strategies (2023), Clean Development Mechanism (CDM) Project Database, version 13.5. Available at: <https://pub.iges.or.jp/pub/iges-cdm-project-database>

<sup>19</sup> The Economist. Last visit 05.07.2024.

### 3.3. Mobilising additional funds for methane action through the Capital Adequacy Framework (CAF) modernisation

The conclusions of the independent review commissioned by the G20 urged Multilateral Development Banks (MDBs) to update and modernize their **Capital Adequacy Frameworks (CAF)**. These frameworks dictate how much capital MDBs must keep in reserve relative to the amount they can lend, and the current frameworks restrict MDBs from fully utilizing their financial capacity. As a result, several studies (Landers and Aboneaaj, 2021; Boosting MDBs’ Investing Capacity, 2022; Larsen and Laxton, 2024) have advocated for changes in CAF, including:

- **Reducing the minimum ratio between equity and loans**, enabling MDBs to lend more.
- **Implementing a portfolio guarantee mechanism** to manage risk more efficiently.
- **Recognizing the value of “callable capital”** to expand their lending potential.

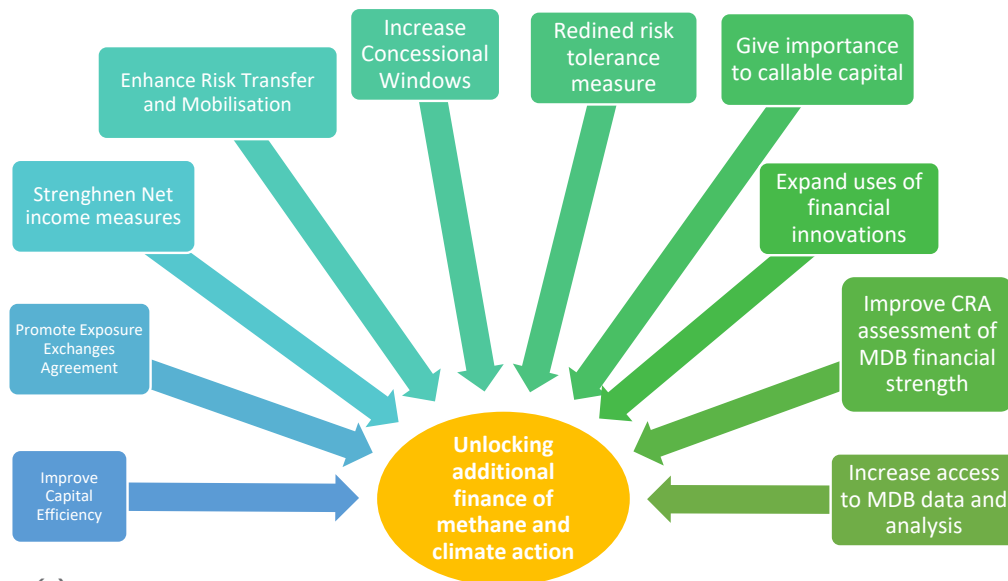
The G20 has also called for MDBs to adopt policies aimed at optimizing their balance sheets. To achieve this, it outlined five key action measures:

1. **Capital Efficiency**
2. **Exposure Exchanges**
3. **Concessional Windows**
4. **Risk Transfer and Mobilisation**
5. **Net Income Measures**

According to various studies, MDBs have the capacity to increase their lending by up to **\$750 billion** without jeopardizing their **AAA credit ratings** from credit rating agencies (CRA). This figure could rise to **\$1.3 trillion** if MDBs are willing to maintain an **AA+ rating** (Humphrey, 2020). The Capital Adequacy Framework panel report further provided five critical recommendations to help MDBs move toward more efficient CAF management.

Given these insights, **modernizing financial governance** is crucial to enhancing MDBs’ commitment to climate goals, especially in developing countries where climate financing capacity is often limited. By modernizing their CAF, MDBs can make better use of their balance sheets, unlocking additional funds for essential climate actions, such as reducing methane emissions. Implementing the recommendations outlined in this report (as seen in Figure 8) would be an important step toward achieving these objectives, positioning MDBs to play a larger role in addressing climate change in the most vulnerable regions.

Figure 8: Measures for MDB to mobilise additional funds for methane and climate action



Source: Author(s) analysis.



To successfully modernize MDBs' Capital Adequacy Frameworks (CAFs) without jeopardizing their AAA credit ratings, it is essential that credit rating agencies (CRAs) engage in frank, sincere, and constructive dialogue with MDBs. This collaboration is crucial for ensuring that MDBs can continue to mobilize resources from investors at low cost while optimizing their financial capacities. The discussions between MDBs and CRAs should focus on:

- **Strengthening communication and mutual** understanding between MDBs and CRAs.
- **Reinforcing the methods used by CRAs to assess MDBs**, incorporating new approaches that reflect MDBs' evolving role in global development.
- **Integrating environmental, social, and governance (ESG) factors** into rating methodologies, aligning them with the broader goals of sustainable development and climate action.

Recent dialogues between major MDBs and the three main CRAs indicate progress, offering hope that the criteria used to rate MDBs will be updated to better reflect their enhanced roles, especially in climate finance.

Additionally, MDBs are being urged to implement their Joint Framework, which aligns their activities with the goals of the Paris Agreement (signed in 2018), and the recommendations from the G20 Independent High-Level Expert Group on Climate Finance. These recommendations highlight the need for MDBs to triple their current climate finance commitments by 2030 in response to the escalating climate crisis.

One encouraging development is the World Bank's commitment to increase its climate financing target from 35% to 45% of total financing by 2025 (Larsen and Laxton, 2024). Similarly, other MDBs, including the African Development Bank (AfDB), the Islamic Development Bank, and the New Development Bank, should consider adopting similar approaches to strengthen their climate commitments. By placing climate action at the core of their priorities, these institutions will be better positioned to meet the growing need for climate finance and support the

global transition to a low-carbon, resilient future.

### 3.4. Develop methane finance projects pipeline and increase methane project demand

The development of methane emissions financing projects must become a central pillar of MDBs' climate financing strategies. Historically, MDBs have shown limited interest in financing methane reduction efforts, and this is particularly true for the African Development Bank (AfDB), which has yet to launch a specific methane emissions reduction project on the African continent. In contrast, institutions such as the World Bank and the Inter-American Development Bank (IADB) have made strides in methane reduction in Africa and Latin America, respectively.

A report by AfriCatalyst on strategies for mobilizing funding to reduce methane emissions in Africa (Sembene et al., 2023) revealed that 80% of methane emissions in Africa come primarily from 19 countries. Developing specific projects targeting these countries is crucial to addressing methane emissions on the continent.

Fortunately, there is political will, as many of these countries are signatories to the Global Methane Pledge and have included methane reduction targets in their Nationally Determined Contributions (NDCs). MDBs can play a pivotal role by incorporating methane-focused projects into their climate financing strategies, tailored to the methane reduction targets of these key countries. Collaborating with existing initiatives like the Climate and Clean Air Coalition (CCAC) and the World Bank's methane reduction projects in the energy sector will enhance the effectiveness of these efforts.

One challenge is that African governments and project initiators have historically placed little emphasis on methane reduction projects. Few proposals for methane emission reduction initiatives are submitted, potentially due to limited awareness of methane's environmental and health impacts. This gap in understanding is a significant barrier to progress. Methane, as a powerful greenhouse gas, is often overlooked by the public, and

greater awareness is needed about the substantial potential for reducing methane emissions.

To address this, MDBs, in partnership with governments, local organizations, and international civil society groups, must launch a comprehensive awareness-raising campaign. This campaign would include:

- **Workshops, seminars, and brainstorming sessions** to educate stakeholders on the risks posed by methane emissions and the opportunities for reducing them across various sectors.
- Identification and support of organizations interested in developing methane reduction projects.

The Natural Resource Governance Institute (NRGI) has already initiated methane awareness-raising activities in several African countries, which MDBs could capitalize on and expand to amplify outreach efforts. By partnering with these efforts, MDBs can ensure that all key stakeholders—private sector actors, governments, and Civil Society Organizations (CSOs)—become more attuned to the issue of methane emissions and start prioritizing it in their applications for climate financing.

In the short term (within the next five years), MDBs must focus on raising awareness of the economic, environmental, and health benefits of reducing methane emissions. This heightened awareness will encourage African governments and the private sector to express a greater demand for climate financing aimed at methane reduction, ultimately leading to the formulation and proposal of bankable projects that can meaningfully reduce methane emissions on the continent. By making methane a focal point, MDBs can help drive forward significant progress in Africa's contribution to global climate goals.

### 3.5. Provide local currency finance for methane abatement action

In small economies, such as those across the African continent, foreign currency loans—particularly in US dollars and euros—are commonly used. However, this type of

lending poses significant risks for African countries, including exchange rate risk, which increases debt servicing costs. In recent years, major African economies like Nigeria, South Africa, and Egypt have experienced steep declines in their local currencies relative to the US dollar, making these loans even more burdensome. Volatility in international markets can have profound consequences for African economies, underscoring the need for solutions that reduce exposure to such risks.

One approach is for Multilateral Development Banks (MDBs) to facilitate lending in local currencies. By doing so, MDBs can help mitigate the risks associated with foreign currency fluctuations, enabling African countries and their private sectors to borrow with greater confidence and at lower costs. This approach would eliminate exchange rate risk and provide greater financial stability, especially when financing long-term projects such as environmental initiatives aimed at methane emissions reduction.

To make local currency lending effective, MDBs should expand these offerings to not only African states and the local private sector but also to National Development Banks (NDBs) and local commercial banks. This would empower domestic financial institutions to play an active role in financing methane reduction and other climate-related projects, ensuring that the entire financial ecosystem contributes to sustainable development goals.

In addition to facilitating local currency lending, MDBs should support initiatives aimed at reducing the risks foreign investors face when investing in local currency. This includes providing technical assistance to governments to strengthen the regulation of local financial systems and improve monetary policy frameworks. By enhancing the resilience of local financial markets, MDBs can make local currency lending more attractive to international investors, fostering a more stable and diversified financing environment.

Technical assistance should also focus on developing hedging instruments and risk-sharing mechanisms to protect against currency depreciation and short-term volatility. These tools would provide additional security to both local and international

investors, ensuring that African economies are less vulnerable to external shocks and better equipped to finance critical environmental projects like methane emissions reduction.

In summary, by promoting local currency lending and strengthening local financial markets, MDBs can play a pivotal role in stabilizing African economies, reducing their exposure to exchange rate risk, and unlocking more affordable financing for methane reduction projects and other climate initiatives.

### 3.6. Provide patient capital and increase concessional loans

To enhance access to financing for methane mitigation projects, Multilateral Development Banks (MDBs), as long-term investors with a political mandate, are uniquely positioned to provide “patient capital”—capital with longer maturities and higher risk tolerance than the private sector typically accepts. This is especially important for methane reduction projects, which may only become profitable in the long term, requiring early-stage investment to get off the ground (OECD, 2021).

MDBs could further facilitate this by converting part of their assets into patient capital, deploying capital through national strategic investment funds and national climate funds. Many African countries have climate funds, but their capital resources are often limited. By capitalizing these funds—either directly or through co-investments—MDBs can strengthen local financial ecosystems to support climate-related projects. These could include investments in methane-reducing initiatives such as waste management, recycling, and climate-smart agriculture.

By deploying capital through local strategic investors, MDBs would significantly boost African countries’ capacity to mobilize funds for climate action. This approach encourages the growth of local capital markets, making it easier for governments and the private sector to access financing for projects that reduce methane emissions.

Moreover, MDBs should also increase concessional financing to support projects that are not immediately attractive to private investors but have significant long-term environmental benefits. Concessional financing can make such projects viable by lowering costs and reducing risks. One tool to achieve this is through a first-loss guarantee, where a third party compensates lenders in the event of borrower default (World Bank, 2021). This guarantee mechanism can help attract private investors to projects that would otherwise seem too risky, such as:

- Replacing oil-fired power stations with renewable energy sources.
- Investing in low-methane rice production techniques, such as alternate wetting and drying (AWD).
- Improving manure management to reduce methane emissions in livestock farming.

These tools offer much-needed flexibility, bridging the gap between philanthropic or public funding and private-sector investment opportunities. MDBs can play a critical role in catalyzing private capital for methane reduction projects, combining concessional financing, guarantees, and patient capital to create an environment where climate projects are both viable and attractive to investors.

In doing so, MDBs not only increase the availability of capital but also create a sustainable pathway for African countries to meet their climate goals, particularly in reducing methane emissions, while fostering economic development in the process.

### 3.7. Strengthen collaboration and partnerships

To significantly reduce methane emissions, it is crucial for MDBs to forge partnerships, pool efforts, and create synergies not only among themselves—including regional and national development banks—but also with domestic stakeholders such as governments, civil society organizations, the private sector, and philanthropic foundations. Synergies must also be established between existing initiatives. While several initiatives have been

launched in recent years, there is currently limited coordination between them. In this subsection, we will analyze the potential for collaboration between the various existing initiatives and MDBs.

### 3.7.1. Agricultural sector

As the primary source of emissions on the African continent, accounting for 50.59%, the agricultural sector requires substantial collaboration between various actors, particularly MDBs. Over the past year, there have been several initiatives, but these have been limited to a small number of countries and have not been extended to the broader African continent. For example, Ethiopia and Zambia have been key beneficiaries of the **BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL)**, which aims to reduce greenhouse gas emissions from the land management sector, including efforts to reduce deforestation and forest degradation (REDD+), promote sustainable agriculture, and implement smarter land-use planning, policies, and practices<sup>20</sup>.

As part of this initiative, Ethiopia signed a **\$40 million Emissions Reductions Purchase Agreement (ERPA, phase II)** in 2023 to preserve forests for carbon sequestration and improve livestock management in the Oromia region, covering 32 million hectares. This carbon offsetting initiative is a model from which other cities and countries in Africa can benefit. The **World Bank** and the **African Development Bank (AfDB)** can work together to extend this initiative across more regions and countries in Africa. Such efforts could be supported by the **Food and Agriculture Organization (FAO)**, which possesses substantial expertise in sustainable agricultural practices.

The **AfDB** could further promote these types of initiatives in collaboration with regional development banks such as the **East African Development Bank (EADB)**, the **West African Development Bank (BOAD)**, the **ECOWAS Bank for Investment and Development (EBID)**, the **Arab Bank for Economic Development in Africa (BADEA)**, and the **African Export-Import**

**Bank (Afreximbank)**, along with other development banks operating across the continent. Additionally, as an accredited entity to the **Green Climate Fund (GCF)**, the AfDB could develop pipeline projects targeting countries with significant methane emissions from agriculture. These projects should engage major agri-food companies operating in Africa, encouraging them to adopt low-emission production techniques.

There are also significant opportunities for collaboration between MDBs (including the AfDB and regional development banks) and international organizations focused on agriculture, which implement projects and programs that reach local communities and small-scale producers. Such organizations include the **International Fund for Agricultural Development (IFAD)**, the **International Food Policy Research Institute (IFPRI)**, the **Consultative Group on International Agricultural Research (CGIAR)**, the **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)**, the **International Rice Research Institute (IRRI)**, and the **International Institute of Tropical Agriculture (IITA)**. A strong partnership between these organizations and MDBs could facilitate the development of methane reduction projects of mutual interest and enhance both the focus on reducing methane emissions and local ownership of these initiatives.

### 3.7.2. Energy sector

There are numerous opportunities for collaboration in the energy sector to reduce methane emissions. While other MDBs have been more proactive, the **African Development Bank (AfDB)** has shown relatively modest interest in addressing methane emissions on the African continent. However, the AfDB is well-positioned to take a leading role in reducing methane emissions, particularly in the energy sector, where many of the oil and gas companies operating in Africa are multinational corporations. To effectively tackle this challenge, a **regional and continental approach** will be essential. The AfDB could serve as a bridge between **African states** and **oil and gas companies**,

<sup>20</sup> ISFL Website. Last visit, 03/07/2024.

facilitating the implementation of stricter regulations on **gas flaring** during production processes.

The AfDB could also collaborate with the **World Bank's initiatives** in this area, such as the **Global Gas Flaring Reduction Partnership (GFMR)** and the **Zero Routine Flaring by 2030 (ZRF)** initiative. By leveraging the progress already made through these initiatives, the AfDB could accelerate the adoption of methane reduction practices in the energy sector across the continent.

This collaboration could result in the development of specific **flaring reduction projects and programs** tailored to each hydrocarbon-producing country in Africa. Currently, only six African countries—**Algeria, Angola, Egypt, Gabon, Libya, and Nigeria**—are involved in the **GFMR**

initiative. It is crucial to extend these efforts to emerging hydrocarbon producers such as **Senegal, Mauritania, Mozambique**, and others, including **Equatorial Guinea, Republic of Congo, Sudan, Chad, Côte d'Ivoire, Cameroon, Niger, Ghana, Tunisia, Democratic Republic of Congo, and South Africa**.

Several studies (UNEP and CCAC, 2021; IEA, 2021; World Bank, 2022) have consistently shown that reducing methane emissions in the energy sector is one of the **fastest and most cost-effective** ways to stay on track with global climate targets. By actively promoting methane emission reductions and collaborating with existing initiatives, the AfDB can play a critical role in ensuring that African countries, particularly those with growing oil and gas industries, contribute meaningfully to global methane reduction efforts.

## Box 2 ▶ The role of jurisdictions in reducing methane emissions

The case study carried out in 21 oil and gas producing countries (28 different jurisdictions) by the World Bank as part of the GGFR initiative provided interesting insights into the effectiveness of the legal and regulatory framework, financial incentives and disincentives, contractual arrangements, institutional governance, monitoring and enforcement practices, public-private partnerships in eliminating routine gas flaring and venting in oil and gas operations (for more details on the study, see World Bank, 2022; GGFR, 2022). The study reveals that the total volume of natural gas flared worldwide has fallen by 14% from its 1996 level to 144 billion cubic metres in 2021, despite a 20% increase in oil production over the same period.

This result could be explained in particular by the establishment of stringent measures. Indeed, 21 jurisdictions prohibit all routine flaring or venting, and 14 jurisdictions impose monetary penalties or resort to commercial solutions. The study also reveals that around half of the 21 countries analysed have reduced the volume of gas flared and its flaring intensity since 2012. The best-performing jurisdictions have used different regulatory instruments, but they all use a variety of monetary or non-monetary measures with strong incentives or disincentives, and they all give their regulators the power to monitor and enforce compliance. Poorly performing jurisdictions generally lack clearly defined and appropriate laws and regulations, with significant penalties, or the will and capacity to enforce compliance.

This case study provides important information on the role of regulation. The AfDB and the other Development Banks operating on the continent should help African countries to define regulations that are conducive to the elimination of environmentally unfriendly practices in hydrocarbon operations and create monitoring mechanisms to ensure that the desired results are achieved in the short, medium and long term.

In addition, structuring projects aimed at reducing methane emissions could emerge if MDBs operating on the African continent establish partnerships with key initiatives such as the **Climate and Clean Air Coalition (CCAC)**, the **Global Methane Hub (GMH)**, the **International Energy Agency (IEA)**, **UNEP's International Methane Emissions Observatory (IMEO)**, and the **Clean Air Task Force (CATF)**. These partnerships would not only bring together diverse expertise but also provide funding for research into **new technologies** and innovative solutions for reducing methane emissions in the energy sector.

### 3.7.3. Waste sector

The waste sector is the third-largest emitter of methane, accounting for approximately 15.17% of total methane emissions in Africa in 2022. However, it also presents a significant opportunity for emissions reduction, comparable to other sectors, and could be amplified through collaboration between MDBs and actors in the waste management sector. **Waste management** is one of the critical challenges facing African cities due to rapid urbanization and population growth. Methane emissions from waste represent a public health hazard for urban populations across the continent.

One of the primary difficulties faced by municipalities is the mobilization of the **financial and technical resources** necessary for effective waste treatment. This presents an opportunity for MDBs to collaborate with municipalities to develop concrete initiatives for **mobilizing funds** to support methane reduction actions in the waste sector.

MDBs operating in Africa can forge partnerships with existing initiatives, such as the "Mainstreaming Organic Waste Management across 11 Countries" project, which includes **the Democratic Republic of Congo, Nigeria, Ethiopia, Ghana, Kenya, Liberia, Rwanda, Senegal, Zimbabwe, Uganda, and Morocco**. Other initiatives, such as the **C40** and **CCAC's waste finance programme** and their technical assistance for municipalities in the Global South,

also offer platforms for collaboration. The 11-country project aims to manage **1.9 million tonnes of waste per year** and achieve a **40% reduction in methane emissions by 2030**, aligning with the goals of the **CCAC's "Coalition 2030" strategy**<sup>21</sup>.

Additionally, **CCAC** has made significant progress in developing **roadmaps for waste management** in several African countries. MDBs could play a pivotal role in facilitating the implementation of these roadmaps, ensuring that methane emissions reductions in the waste sector become a reality on the African continent. Through financial support, technical assistance, and partnership-building, MDBs can contribute significantly to addressing methane emissions and improving waste management practices across African cities.



<sup>21</sup> CCAC Website



## CONCLUSION

Reducing methane emissions is more critical than ever if we are to make significant progress in lowering global emissions and achieving climate objectives by 2030. **Multilateral Development Banks (MDBs)** are in a strong position to mobilize the necessary financing for methane reduction projects, as just **2.4% of their total assets** would be sufficient to meet the annual methane emission reduction needs by 2030. Beyond financing, MDBs can also provide **technical assistance and capacity building** to African countries in their efforts to mitigate methane emissions.

This technical assistance offers a valuable opportunity to equip countries with **reliable data collection technologies**, enabling them to identify the best opportunities for methane reduction across the continent. It also allows MDBs to help **build the capacity of governments** to develop and implement national policies, regulations, and strategies aimed at reducing methane emissions.

Additionally, MDBs can play a pivotal role in fostering partnerships with the **private sector**, particularly with oil and gas companies and large agri-food corporations, encouraging them to make concrete commitments to methane reduction. These partnerships can also help promote greater **transparency in the sector**, ensuring that emission reductions are measurable and accountable.

In the short and medium term, MDBs need to take bold and proactive actions to be more effective in mitigating methane emissions. Key actions can be summarized as follows:

- **Support tariff regulations for methane emissions** in the energy sector.
- **Boost local carbon markets** to facilitate the trading of carbon credits for methane reduction projects.
- **Modernize their Capital Adequacy Framework (CAF)** to free up more resources for climate financing.
- **Develop a robust pipeline of methane finance projects** and increase demand for such projects across Africa.
- **Provide local currency financing** to mitigate the risks associated with exchange rate volatility in methane abatement projects.
- **Offer patient capital** and increase concessional loans to make methane reduction projects more financially viable.
- **Strengthen collaboration and partnerships** in key sectors such as agriculture, energy, and waste management to scale up methane reduction efforts.

With these reforms and initiatives, MDBs can take a more prominent role in supporting African countries' efforts to mitigate methane emissions. However, time is of the essence—2030 is fast approaching, and urgent action is needed now. In the short term, MDBs must operate efficiently and decisively to galvanize methane reduction efforts across Africa. The success of these actions will be critical in helping the continent meet its climate targets and contribute to global methane reduction goals.





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