

# Carbon Accounting by Public and Private Financial Institutions: Can We Be Sure Climate Finance Is Leading to Emissions Reductions?

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**Columbia Center**  
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## About



The Columbia Center on Sustainable Investment is a leading applied research center and forum dedicated to the study, discussion and practice of sustainable international investment.



The Coalition on Materials Emissions Transparency (COMET) is an initiative between the Columbia Center on Sustainable Investment (CCSI), the Payne Institute for Public Policy at the Colorado School of Mines, and RMI.

COMET accelerates supply chain decarbonization by enabling producers, consumer-facing companies, investors, and policy makers to better account for greenhouse gas (GHG) emissions throughout materials supply chains, in harmony with existing GHG accounting and disclosure methods and platforms.

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## Key Messages

- **To support the achievement of global carbon net neutrality by mid-century, public and private financial institutions must calculate their financed emissions using a harmonized carbon accounting methodology.** Accurate, consistent, and comparable data on emissions and emissions reductions from financed investment projects is essential for financial institutions to set mitigation targets, devise plans to decarbonize their portfolios, and monitor progress. Obtaining this data requires a harmonized carbon accounting method applicable across countries, companies, projects, materials, and products.
- **Emissions disclosures initiatives and requirements are proliferating, but currently do not ensure harmonization of carbon accounting methods.** Applying the various accounting methods permitted by emissions reporting initiatives and requirements leads to different calculated outcomes. Acknowledging this problem, multilateral development banks (MDBs) and private financial institutions have taken steps toward harmonizing carbon accounting.
- **Transparency of carbon emissions is high on the agenda for the MDBs.** Formed by a group of major MDBs in 2012, the International Financial Institutions Technical Working Group (IFI TWG) has since produced a dataset of emissions factors for electricity grids across 240 geographic areas and published an interim guideline to harmonize carbon accounting.
- **There remains a gap to be filled for MDBs to harmonize carbon accounting of financed investments.** MDBs must overcome barriers including the allocation of specific funds as ‘climate finance’ rather than holistically evaluating the climate impacts of all activities; the use of different methods by different banks to account for the emissions of financed projects without demonstrating the comparability of outcomes; and the lack of specificity within harmonization initiatives. The IFI TWG’s interim guideline, for example, provides a base methodology, but gives institutions significant flexibility in calculating emissions.
- **Many initiatives encourage private financial institutions to account for financed emissions, but do not seek to harmonize accounting methods.** Initiatives such as the Net Zero Asset Owner Alliance (NZAOA), Climate Action 100+, and the Net Zero Investment Framework help mainstream carbon accounting in private finance. However, they do not promote harmonization, by referring to various methods, including the Greenhouse Gas (GHG) Protocol, the Science-Based Targets Initiative, the Investor Energy & Climate Action Toolkit (InvECAT), the Partnership for Carbon Accounting Financials (PCAF), and the Task Force on Climate-Related Financial Disclosures (TCFD).
- **Certain standards for private financial institutions may lead to greater levels of carbon accounting harmonization, without guaranteeing it.** For example, by allowing only one core accounting framework (GHG Protocol), PCAF’s Global GHG Accounting and Reporting Standard for the Financial Industry increases the level of harmonization. However, since the standard and the GHG Protocol itself leave room for variability in their methodologies, they do not guarantee harmonization.
- **Public and private financial institutions need a rigorous, thorough, and harmonized carbon accounting methodology applied across sectors, with sector-specific guidance.** The harmonization of emissions accounting for mineral and industrial supply chains is especially significant due to their high emission intensity. The [Coalition on Materials Emissions Transparency \(COMET\)](#)—formed by the Columbia Center on Sustainable Investment (CCSI), RMI, and the Payne Institute for Public Policy at the Colorado School of Mines, in partnership with the Secretariat of the United Nations Framework Convention on Climate Change (UN Climate Change)—is developing a standard GHG calculation framework for mineral and industrial supply chains, integrating existing methodologies.

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## 1 Introduction

Anthropogenic climate change due to the emission of greenhouse gases into the atmosphere is the greatest threat facing society this century. The Intergovernmental Panel on Climate Change (IPCC) highlights the urgency of ambitious climate action and the devastation that may be caused if this action is not realized.<sup>2</sup> As such, decarbonizing the economy is a pressing challenge, and funding the zero-carbon transition will require large-scale finance. To achieve the scale and rate of change required for global carbon net neutrality by mid-century, both public and private finance must be mobilized to fund mitigation efforts across industries. In addition to directing capital toward mitigation projects, funding to carbon-intensive projects must be evaluated and ended if not aligned with decarbonization targets. As stated in a 2019 feature in *Nature*, “[f]inanciers will have to step away from approaching climate change on a project-by-project basis—a wind farm here, a solar plant there—and start thinking about the carbon impact of every dollar spent. That means an end to projects that lock in unsustainable futures.”<sup>3</sup>

In short, finance is at the heart of the zero-carbon transition. For financial institutions to take action to align with the Paris Agreement, they must calculate the emissions and emissions reductions from projects they finance, providing full emissions transparency and a plan to decarbonize their portfolio. Calculating emissions and emissions reductions requires a methodology applicable across countries, companies, projects, materials, and products to generate consistent and comparable data on the emission intensity of investments. Calculating and reporting emissions is fundamental to setting mitigation targets and assessing if they are being fulfilled.

At the moment, reporting portfolio emissions is generally voluntary, but the number of institutions reporting is increasing, and the disclosure of emissions is likely to become mandatory across markets in the near future. This trend has already begun in New Zealand, which in September 2020 passed legislation to make emissions disclosure mandatory for financial organizations with over USD 1 billion in total assets.<sup>4</sup> Furthermore, on April 21, 2021, the European Union (EU) adopted a package of measures to accelerate the decarbonization of the financial industry. The package includes the EU Taxonomy Climate Delegated Act adopted in June 2021, which introduces disclosure obligations on 40% of listed companies representing 80%

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2 IPCC, *Global warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*, ed. V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield, 2018, <https://www.ipcc.ch/sr15>.

3 Sophie Yeo, “Where Climate Cash Is Flowing and Why It’s Not Enough,” *Nature* 573, no. 7774 (September 2019): 328–31, <https://doi.org/10.1038/d41586-019-02712-3>.

4 “Mandatory Climate-Related Financial Disclosures | Ministry for the Environment,” NZ Ministry for the Environment (website), New Zealand Ministry for the Environment, April, 2021, <https://www.mfe.govt.nz/climate-change/climate-change-and-government/mandatory-climate-related-financial-disclosures>; Khalid Azizuddin, “New Zealand Becomes World’s First Country to Introduce Mandatory TCFD Disclosure,” *Responsible Investor*, September 15, 2020, <https://www.responsible-investor.com/articles/new-zealand-becomes-world-s-first-country-to-introduce-mandatory-tcf-d-disclosure>.

of direct greenhouse gas emissions in Europe. It also includes the Corporate Sustainability Reporting Directive (CSRD), which builds on the Non-Financial Reporting Directive (NFRD), expanding its sustainability reporting requirements from 11,000 to 50,000 companies.<sup>5</sup>

While these initiatives ensure disclosure of emissions, they do not ensure harmonization of carbon accounting methods. The EU Taxonomy Climate Delegated Act classifies activities with a ‘substantial contribution to climate change mitigation.’<sup>6</sup> Annex 1 to the act lays out the criteria for this classification for as many as 70 activities, including the production of aluminum, cement, iron and steel, and plastics.<sup>7</sup> The annex determines that the methodology to calculate the benchmarks of the EU Emissions Trading System (ETS) be used to calculate emissions in many cases, including for all of the above materials.<sup>8</sup> In other cases, the annex mandates the use of the EU’s Product Environmental Footprint (PEF) Standard<sup>9</sup> and recognizes alternative methodologies such as the International Organization for Standardization’s (ISO) ISO 14064-1:2018 and ISO 14067:2018. Furthermore, within the EU ETS benchmarks methodology, there is not a specific carbon accounting methodology. Companies are directed to preferentially use EN standards (European Committee for Standardization) when available, followed by ISO standards, national standards, and then industry best-practice guidelines or other scientifically proven methodologies when no standard is

applicable.<sup>10</sup> The difference between these standards and the calculation outcomes they give is recognized by the EU, with the PEF Standard presenting a comparison of the different methods, highlighting the differences.<sup>11</sup>

As such, the results of disclosure obligations are not harmonized, creating challenges for comparing emissions and implementing policies in which the outcomes of emissions calculations have tangible financial results. In the coming years, other countries are likely to follow New Zealand in implementing disclosure obligations, further adding to the urgency of harmonizing accounting methods to ensure comparable and accurate disclosed emissions across markets. In this case, emission accounting becomes essential not only to manage emissions but also to ensure alignment with national and international policy.

As emissions reporting becomes mandatory in the financial sector, the methods by which emissions are calculated will grow in importance for their impact on the resulting metric. Progress is underway in both the public and private financial sectors to embed emissions accounting standards, but there is still a long way to go to make them universal and harmonized. In this paper, we address key developments that both multilateral development banks (MDBs)—major actors in public climate finance—and private financial institutions have made toward adopting and harmonizing methodologies for calculating financed emissions.

## 2 Centrality of Public Finance in Achieving Decarbonization

Public finance is uniquely positioned to lead the decarbonization of the economy due to the scale of investment as well as the development-orientated nature of public finance institutions. MDBs are significant actors in public finance and must adhere to the United Nations (UN) Sustainable Development Goals (SDGs), including SDG 13 on climate action. Accordingly, MDBs must play a leading role in the effort to standardize carbon accounting to ensure their alignment with the SDGs.

Several components of public finance are relevant to climate change mitigation. First, there has been the innovation of ‘green’ and ‘climate’ bonds, beginning with the Eu-

5 European Commission, “Sustainable Finance and EU Taxonomy: Commission Takes Further Steps to Channel Money Towards Sustainable Activities,” press release, April 21, 2021, [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_1804](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_1804); Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, EU Doc. PE/20/2020/INIT, OJ L 198, June 22, 2020, <http://data.europa.eu/eli/reg/2020/852/oj>.

6 Commission Delegated Regulation (EU) ... of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, June 4, 2021, [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PI\\_COM:C\(2021\)2800](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PI_COM:C(2021)2800).

7 Annex 1 to the EU Taxonomy Climate Delegated Act (Provisional version), June 4, 2021, [https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-annex-1\\_en.pdf](https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800-annex-1_en.pdf).

8 Commission Delegated Regulation (EU) 2019/331 of 19 December 2018 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the European Parliament and of the Council, December 19, 2018, [https://eur-lex.europa.eu/eli/reg\\_del/2019/331/oj](https://eur-lex.europa.eu/eli/reg_del/2019/331/oj).

9 Commission Recommendation 2013/179/EU of 9 April 2013 on the use of common methods to measure and communicate the lifecycle environmental performance of products and organisations, April 9, 2013, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013H0179>.

10 Martin Dietrich Brauch and Solina Kennedy, *The COMET Framework: Greenhouse Gas Data Transparency to Enable the Success of EU Climate Policy* (New York: CCSI, 2020), <https://ccsi.columbia.edu/sites/default/files/content/docs/publications/CCSI-COMET-Framework-and-EU-Climate-Policy.pdf>.

11 Commission Recommendation 2013/179/EU, Annex 10, Table 16.



ropean Investment Bank's (EIB) 'Climate Awareness Bond' in 2007, followed by the International Bank for Reconstruction and Development's (IBRD) 'Green Bond' in 2008. This concept has spread across key MDBs, and in a 2020 joint report, they stated that they are "seeking to establish harmonized best practices for this market."<sup>12</sup> In addition to green bonds, there is also a broader definition of 'climate finance,' which varies between institutions but generally relates to all investments that can be linked to a reduction of emissions below a base scenario. In the case of the MDBs reporting through the joint report, "the term 'MDB climate finance' refers to the financial resources committed by MDBs to development operations and components thereof which enable activities that mitigate climate change and support adaptation to climate change."<sup>13</sup> Finally, there are also the overall goals of institutions to reduce the total climate impact of their investment portfolios.

Many of the largest MDBs have set ambitious post-2020 climate targets, including quantified commitments to climate finance and pledges to support external climate initiatives.<sup>14</sup> In the *High Level MDB Statement* at the UNSG Climate Action Summit, key MDBs outlined the intention to contribute in total "at least USD 65 billion annually by 2025" with "a further USD 40 billion of climate investments mobilized annually by 2025 from private sector investors."<sup>15</sup> Such substantial commitments highlight the central role of MDBs in financing the transition to carbon neutrality.

Moreover, the overall calculation of emissions supports the implementation of carbon markets and pricing mechanisms, which the key MDBs have endorsed and begun to take action on. MDB initiatives to support countries in designing and implementing carbon pricing mechanisms

include, among others,<sup>16</sup> the World Bank's 'Partnership for Market Readiness' (PMR) Initiative, active 2011–2021, and its successor program, the 'Partnership for Market Implementation' (PMI), active since early 2021.<sup>17</sup>

To be effective, these goals and initiatives by MDBs must have emission accounting at their core. The success of these climate initiatives cannot be accurately assessed without a calculation of total financed emissions and the net climate impact of the institutions' activities.

### 3 Multilateral Development Banks and Carbon Accounting Harmonization

In light of their broad commitments to climate initiatives, the MDBs have recognized the need for harmonized accounting and reporting of financed greenhouse gas emissions and have identified this harmonization as key in defining and monitoring their long-term climate plans. MDBs have both pledged and disbursed climate finance as well as expressed the intention to harmonize emissions accounting and disclosure methods, but to what extent they have been successful in these goals?

First, MDBs have expressed their support for emissions accounting and harmonization through their collaborations both with each other and with third-party organizations. One such example is the Climate Action in Financial Institutions Initiative (also called Mainstreaming Climate), which outlines the 'Five Voluntary Principles for Mainstreaming Climate Action within Financial institutions.' All major MDBs are members of the initiative and have endorsed the principles. The fifth principle is of particular relevance, as

12 African Development Bank (AfDB), Asian Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB), Council of Europe Development Bank (CEB), European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), Inter-American Development Bank Group (IDB), International Finance Corporation (IFC), Islamic Development Bank (IsDB), New Development Bank (NDB), World Bank Group (WBG), and International Monetary Fund (IMF), *Financing the Sustainable Development Goals: The Contribution of the Multilateral Development Banks* (Jeddah: IsDB, December 2020), [https://www.isdb.org/sites/default/files/media/documents/2021-03/MDBs%20Report%20on%20SDGs\\_vf.pdf](https://www.isdb.org/sites/default/files/media/documents/2021-03/MDBs%20Report%20on%20SDGs_vf.pdf).

13 AfDB, ADB, AIDB, EBRD, EIB, IDB, IsDB, and WBG, *2019 Joint Report on Multilateral Development Banks' Climate Finance* (Washington: IDB, August 2020), 5, <http://dx.doi.org/10.18235/0002528>.

14 Joe Thwaites, "The Good, the Bad and the Urgent: MDB Climate Finance in 2019," *World Resources Institute* (blog), August 18, 2020, <https://www.wri.org/blog/2020/08/mdbs-climate-finance-insights-2019>.

15 ADB, AfDB, AIIB, EBRD, EIB, IsDB, NDB, and WBG, "High Level MDB Statement for Publication at the UNSG Climate Action Summit," press release, September 22, 2019, <https://www.adb.org/sites/default/files/page/41117/climate-change-finance-joint-mdb-statement-2019-09-23.pdf>.

16 Carbon Pricing Leadership Coalition, *Carbon Pricing Leadership Coalition: Official Launch Event and Work Plan* (Paris: Carbon Pricing Leadership Coalition, November 30, 2015), <https://static1.squarespace.com/static/54ff9c5ce4b0a53deccfb4c/t/5783b90a6b8f5b118a391227/1468250378378/CPLC+Launch+Report.pdf>; "Who We Are," Transformative Carbon Asset Facility (website), Transformative Carbon Asset Facility, 2021, <https://tcafwb.org/who-we-are>; "Networked Carbon Markets," WBG (website), WBG, 2015, <https://www.worldbank.org/en/topic/climatechange/brief/globally-networked-carbon-markets>; "Climate Warehouse," WBG (website), WBG, 2020, <https://www.worldbank.org/en/programs/climate-warehouse/overview>; ADB, 50404-001: *Establishing a Support Facility for Article 6 of the Paris Agreement: Technical Assistance Report* (Mandaluyong: ADB, December 2018), <https://www.adb.org/sites/default/files/project-documents/50404/50404-001-tar-en.pdf>; EBRD, *Methodology for the Economic Assessment of EBRD Projects with High Greenhouse Gas Emissions: Technical Note* (London: EBRD, January 2019), <https://www.ebrd.com/documents/comms-and-bis/methodology-for-the-economic-assessment-of-ebrd-projects-with-high-greenhouse-gasemissions.pdf>.

17 AfDB et al., *Financing the Sustainable Development Goals*; WBG, *Partnership for Market Implementation* (Washington D.C.: WBG, December 8, 2019), <https://www.worldbank.org/en/topic/climatechange/brief/partnership-for-market-implementation>.

it states that financial institutions must account for their climate action and “report, wherever possible, the climate footprint of the institutions’ own investment portfolio.”<sup>18</sup>

Additionally, since 2012, the major MDBs have produced their own annual joint report on climate finance.<sup>19</sup> The New Development Bank (NDB) is the only major MDB not reporting its climate-related activities through this channel. The report discloses the financial contributions of each bank to both climate mitigation and adaptation projects, as well as their targets and progress toward them. However, the methodology defining what investments may qualify as climate mitigation or adaptation activities is unclear. The report highlights the magnitude of financial flows to ‘green’ projects but does not quantify how ‘green’ these projects actually are. This lack of specificity is especially relevant for mitigation efforts, where emissions from projects do not determine their status as ‘climate finance.’ The methodology explicitly states that “climate finance tracking is independent of GHG accounting reporting in the absence of a joint GHG methodology,” directly linking the ambiguity to a lack of accounting harmonization.<sup>20</sup>

On the one hand, the focus on calculating the magnitude of climate finance in monetary terms has the potential to detract from the need to evaluate emissions across all of the institutions’ activities, not just the activities designated to be climate-related. On the other hand, the MDBs have made separate commitments to align their overall activities with mitigation targets. In 2017, the MDBs reporting through the Joint Report made a commitment to align their overall operations with the Paris Agreement, going “beyond climate finance targets to ensure alignment with mitigation goals, systematically screen operations for climate resilience, scale up climate finance, support strategies for low-emission and climate-resilient development, and develop reporting mechanisms.”<sup>21</sup> This goal addresses all activities of the MDBs, not just climate finance, and states that they should be in alignment with mitigation goals. However, despite these commitments, MDBs committed USD 3.10 billion to support fossil fuel energy since early 2020. In the same period, though, they contributed

USD 13.15 billion to clean energy projects.<sup>22</sup> To understand the net impact of conflicting investments such as these, greenhouse gas emissions accounting becomes essential. In the 2019 *High Level MDB Statement*, the MDBs responded to this necessity by identifying the creation of a “new transparency framework to report on both the impact of each MDB’s activities and how these are helping clients meet and exceed [their] commitments” as the fourth of their five key actions to address climate change.<sup>23</sup> Again, this highlights the ambition to report on the climate impact of the totality of each MDB’s activities.

MDBs are aiming to improve transparency on the emissions of projects they finance. However, there is not yet a comprehensive methodology for how the MDBs will calculate the emissions associated with their activities. There is still much progress to be made regarding emissions calculations, and it appears the issue is high on the agenda for the MDBs. In 2012, MDBs formed the International Financial Institutions Technical Working Group (IFI TWG) to harmonize project-level emissions accounting. The IFI TWG includes most of the main MDBs, but currently misses the Islamic Development Bank (IsDB) and the NDB. A key outcome the IFI TWG has produced so far is a dataset of harmonized emissions factors for electricity grids across 240 geographic areas (at both national and sub-national levels).<sup>24</sup> Additionally, in 2015, the IFI TWG released a four-page document outlining its framework for a harmonized accounting methodology, which was then expanded into a longer Interim Guideline in March 2021.<sup>25</sup>

The IFI TWG Interim Guideline is a key document in terms of harmonizing MDBs’ emissions accounting. It provides a base methodology and insists that institutions must be transparent about their own methods, recording and explaining the choices made within their methodology and their assessment boundary. However, the guideline also provides a significant amount of flexibility to the institutions in how they report their emissions, flexibility which hinders the comparability of emissions reports. The guide-

18 “Principle 5 – ACCOUNT for Your Climate Action,” Climate Action in Financial Institutions Initiative (website), Climate Action in Financial Institutions Initiative, 2017, <https://www.mainstreamingclimate.org/5-principles/principle-5>.

19 The AfDB, the ASB, the AIB, the ABRD, the EIB, the IDB, the IsDB, and the WBG report through this channel.

20 AfDB, ADB, EBRD, EIB, IDB, IFC, and the World Bank (IDA/IBRD) from the WBG, *Common Principles for Climate Mitigation Finance Tracking*, 2<sup>nd</sup> ed., June 15, 2015, <https://www.worldbank.org/content/dam/Worldbank/document/Climate/MDB%20IDFC%20Mitigation%20Finance%20Tracking%20Common%20Principles%20-%202015062015.pdf>.

21 AfDB et al., *Financing the Sustainable Development Goals*.

22 “Multilateral Development Banks Analysis,” Energy Policy Tracker (website), Energy Policy Tracker, 2021, [https://www.energypolicytracker.org/institution\\_analysis/mdb](https://www.energypolicytracker.org/institution_analysis/mdb).

23 ADB et al., “High Level MDB Statement for Publication at the UNSG Climate Action Summit.”

24 International Financial Institutions Technical Working Group on Greenhouse Gas Accounting (IFI TWG), *AHSA-001: Harmonized Grid Emission factor data set*, version 2.3 (Bonn: IFI TWG, July 2019), [https://unfccc.int/sites/default/files/resource/Harmonized\\_Grid\\_Emission\\_factor\\_data\\_set.xlsx](https://unfccc.int/sites/default/files/resource/Harmonized_Grid_Emission_factor_data_set.xlsx).

25 IFI TWG, *Interim Guideline: International Financial Institutions Guideline for a Harmonised Approach to Greenhouse Gas Accounting* (Bonn: IFI TWG, June 2021), [https://unfccc.int/sites/default/files/resource/Interim\\_Guideline\\_on\\_GHG\\_Accounting\\_and\\_reporting%201Mar.pdf](https://unfccc.int/sites/default/files/resource/Interim_Guideline_on_GHG_Accounting_and_reporting%201Mar.pdf).

line states that “GHG appraisal of investment projects can be performed applying the requirements of, inter alia, the GHG Protocol, the Clean Development Mechanism methodologies, Verra (Verified Carbon Standard), Gold Standard, the EU Emissions Trading Scheme, ISO 14064 (Part 1 and 2), or other recognized standards.”<sup>26</sup> Institutions have flexibility in the standard they use to perform emissions accounting, which builds upon flexibility that already exists within each of these standards, leading to the potential for significant variability in the outcomes of project-level emissions accounting in accordance with the IFI TWG methodology. On the whole, the guideline highlights a significant step in the right direction, but the 2021 Interim Guideline falls short of establishing a truly harmonized methodology. While transparency on choices taken and methodologies used in accounting can provide insight into the context of calculated emissions, this does not solve the issue of comparability. The 2021 Guideline is an Interim Guideline, and a more comprehensive document is expected in the future. For a truly harmonized methodology, the future guideline must increase its specificity and decrease the flexibility given to reporting institutions.

Overall, though major MDBs have recognized the question of emissions accounting, there remains a gap to be filled to implement concrete measures to achieve harmonized accounting. Key barriers include, first, the focus on allocating specific funds as ‘climate finance’ rather than holistically evaluating all activities for their potential climate impacts. Second, the use of different methodologies by different MDBs to account for the carbon emissions of financed projects and the absence of adequate study to demonstrate the comparability of outcomes between these methodologies. Finally, the lack of specificity even within methodology harmonization initiatives such as the IFI TWG Interim Guideline. To harmonize emissions accounting, all the major public finance institutions must endorse a rigorous, thorough, and harmonized methodology that applies across sectors while providing sector-specific guidance.

## 4 Carbon Accounting Developments in Private Climate Finance

As momentum is gaining for emissions accounting and harmonization in public finance, the private sphere is achieving similar, if not faster, rates of development. Cumulative pressure from companies, financial institutions, national governments, international organizations, and the public has led to the establishment of many initiatives to improve the calculation and reporting of financed emissions. Below we expand on several notable examples.

The United Nations–convened Net Zero Asset Owner Alliance (NZAOA) was founded in 2019 with 12 members and has grown to include 37 institutional investors representing USD 5.7 trillion assets under management. The NZAOA commits “to transitioning its investment portfolios to net-zero GHG emissions by 2050” and highlights the importance of quantitative emissions data for investors to make decisions in alignment with this goal.<sup>27</sup> Without defining emissions accounting methodologies, it commits key institutional investors to use emissions accounting and reporting in their decisions.<sup>28</sup> The NZAOA acknowledges the current barriers to harmonized emissions accounting for institutional investors: “the absence of a transparency of inputs and a common methodology between providers, at present, limits [the] ability to track progress towards climate goals.”<sup>29</sup>

The NZAOA is not the only such large-scale collective commitment to emissions mitigation. Climate Action 100+, an initiative of over 570 investors representing over USD 54 trillion in assets under management, engages with corporations to disclose and reduce emissions.<sup>30</sup> The Global Investor Coalition on Climate Change (GICC) and Principles for Responsible Investment (PRI) coordinate the initiative. The GICC comprises regional groups: the Asia Investor Group on Climate Change (AIGCC), Ceres (North America), Investor Group on Climate Change (IGCC) (Australia and

27 “UN-Convened Net-Zero Asset Owner Alliance – United Nations Environment – Finance Initiative,” UN Environment Program Finance Initiative (website), UN Environment Program Finance Initiative, 2020, <https://www.unepfi.org/net-zero-alliance>.

28 Net-Zero Asset Owner Alliance (NZAOA), *Net-Zero Asset Owner Alliance – Live Version 2.0 of Methodological Principles* (UNEPFI, PRI, November 2020), <https://www.unepfi.org/wordpress/wp-content/uploads/2020/11/AO-Alliance-Request-For-Comment-on-Methodological-Principles-Live-V2.pdf>.

29 NZAOA, *Net Zero Asset Owner Alliance Response to TCFD Consultation on ‘Forward-Looking Financial Metrics* (UNEPFI, PRI, February 2021), <https://www.unepfi.org/wordpress/wp-content/uploads/2021/02/TCFD-consultation-AOA-response-on-alignment-metrics1-1.pdf>.

30 “About Climate Action 100+,” Climate Action 100+ (website), Climate Action 100+, 2021, <https://www.climateaction100.org/about>.

26 IFI TWG, *Interim Guideline*.



New Zealand), and the Institutional Investors Group on Climate Change (IIGCC) (Europe).

The IIGCC, with over 300 members representing EUR 37 trillion in assets, is significant on its own account because, in March 2021, it released its ‘Net Zero Investment Framework.’ The framework is notable for its goal to be an implementation guide on how investors can transition their portfolios to emissions neutrality through optimizing asset allocation using emission accounting metrics. It supports risk assessment in line with the Task Force on Climate-Related Financial Disclosures (TCFD) methodology and emissions calculation using the Greenhouse Gas Protocol (GHG Protocol). However, the emissions accounting methodology outlined by the framework remains lacking in rigor and harmonization. It states that “emissions reduction targets and monitoring at the portfolio level should include at least scope 1 and 2 emissions initially, and phase in scope 3 emissions over time (in line with the emerging European timetable for the Sustainable Finance Disclosure Regulation).” It also states that “at [the] asset level, to assess an asset’s alignment with net zero, investors should assess scope 1, 2, and material scope 3 emissions associated with the assets in their portfolios, to the extent possible, based on GHG Protocol accounting methodologies.”<sup>31</sup> The omission of scope 3 emissions in the short term makes the methodology incompatible with others that account for scope 3 emissions—such as those in public finance—and the lack of specificity beyond recommending the GHG Protocol leaves room for variation in the calculated outcomes. The scale of incomparability is significant, as highlighted by the CDP estimate that, “on average, companies report having supply chain greenhouse gas emissions that are 5.5 times greater than their own direct impact from scope 1 and 2 emissions,” with an estimation that upstream emissions are 1.3 times larger than scope 1 and 2 emissions in the materials sector.<sup>32</sup>

Overall, these investor initiatives target the reduction of global greenhouse gas emissions through strategic asset investment. This approach has emissions accounting at its core as the method by which potential investments are evaluated. Each initiative brings together different institutions and stakeholders and elaborates on specific aspects of emissions accounting to track and realize their goals and

commitments. All of the above contributes to setting an industry-standard in mainstreaming greenhouse gas accounting and tracking in private finance. However, they do not create a harmonized system of emissions accounting. Instead, these groups reference several existing initiatives in terms of the methodologies for setting targets, tracking emissions, and disclosing results. These include the GHG Protocol, the Science-Based Targets Initiative, the Investor Energy & Climate Action Toolkit (InvECAT), the Partnership for Carbon Accounting Financials (PCAF), and the TCFD. Despite the common grounding of several of these methodologies in the GHG Protocol, the protocol itself remains broad. Each initiative referring to the GHG Protocol expands upon it in a different way, and numerous initiatives are not aligned with it.

In terms of accounting methodologies for financed emissions, the work of PCAF is arguably most relevant. In November 2020, it released ‘The Global GHG Accounting and Reporting Standard for the Financial Industry.’<sup>33</sup> The standard lays out an emissions accounting methodology specifically tailored to financial institutions. It starts from and elaborates on the GHG Protocol for specific asset classes to remove ambiguity from the more general GHG Protocol standard; it also specifies the use of the IFI TWG’s methodology and datasets for the calculation of operating margin emissions factors.<sup>34</sup> Compared to the IFI TWG Interim Guideline, PCAF allows only one core accounting framework (GHG Protocol) rather than any recognized standard. Using only one core framework increases the level of harmonization and allows the standard to further build upon this more strictly defined base. However, the GHG Protocol and the PCAF standard still leave room for variability in their accounting methodologies and, therefore, do not guarantee harmonization.

Overall, climate alignment in private finance is a rapidly developing field with several large-scale initiatives to implement emissions accounting and disclosing requirements and guidelines. Compared to public finance, there is a clearer focus on aligning all investments and addressing all financed emissions, rather than allocating specific proportions of funds to the more vaguely defined category of ‘climate finance.’ In the end, both holistic ac-

31 Institutional Investors Group on Climate Change (IIGCC), *Net Zero Investment Framework 1.5°C: Implementation Guide* (March 2021), 10, <https://www.parisalignedinvestment.org/media/2021/03/PALI-Net-Zero-Investment-Framework-Implementation-Guide.pdf>.

32 Carbon Trust, *Cascading Commitments: Driving Ambitious Action Through Supply Chain Engagement: CDP Supply Chain Report 2018/19* (CDP, 2019), 18, <https://www.cdp.net/en/reports/downloads/4072>.

33 Partnership for Carbon Accounting Financials (PCAF), *The Global GHG Accounting and Reporting Standard for the Financial Industry*, 1st ed., November 18, 2020, <https://carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf>.

34 PCAF, *The Global GHG Accounting and Reporting Standard for the Financial Industry*, 74; IFI TWG, *Methodological Approach for the Common Default Grid Emission Factor Dataset* (Bonn: IFI TWG, May 18, 2020), [https://unfccc.int/sites/default/files/resource/IFITWG\\_Methodological\\_approach\\_to\\_common\\_dataset.pdf](https://unfccc.int/sites/default/files/resource/IFITWG_Methodological_approach_to_common_dataset.pdf).

counting of financed emissions and dedicated funds to climate change mitigation and adaptation efforts are necessary, and their implementation requires harmonized emissions accounting. The implementation of carbon pricing and emissions trading schemes (ETSs)—such as the EU ETS, the oldest and largest in operation—as well as broader requirements on sustainability reporting—such as the EU Taxonomy—will accelerate the urgency of such harmonization, as variations in accounting have tangible financial outcomes.

## 5 The Coalition on Materials Emissions Transparency (COMET) and the Future of Carbon Accounting in Climate Finance

The financial sector has broadly recognized the need for emissions accounting, as evidenced by the emergence of the range of institutions discussed in this paper, both public and private. While in many cases these institutions, standards, and frameworks are compatible—for example, the PCAF builds on the GHG Protocol, which is further compatible with the TCFD and CDP for the disclosure of emissions and the Science-Based Targets Initiative for mitigation ambitions—the overall implementation of these different standards and methods is not standardized or organized. There are as many as 400 climate initiatives in the financial sector, with many alternatives to the few mentioned above. As described by former Bank of England governor Mark Carney, this runs the risk of institutions “getting lost in the right direction.”<sup>35</sup> This risk drives the need to harmonize emissions accounting and disclosure, ensuring that reporting and tracking are comparable and consistent.

In turn, consistent and comparable emissions disclosure relies on harmonizing the methodology used to calculate emissions. Such harmonization is developing but has a long way to go, with large gaps in emission accounting precision and industry specificity. Mineral and industrial value chains are examples of such overlooked sectors, wherein specific accounting methodologies have not been broadly adopted. This sector is of pressing interest across stakeholders, including the financial sector, due to its relatively high emission intensity. Cement production alone accounts for approximately 8% of global carbon dioxide

emissions, with other key materials such as steel and copper also contributing significant emissions.<sup>36</sup>

The Coalition on Materials Emissions Transparency (COMET) will bridge these gaps by creating a standard GHG calculation framework for mineral and industrial supply chains. An initiative between RMI, the Columbia Center on Sustainable Investment (CCSI), and the Payne Institute for Public Policy at the Colorado School of Mines, COMET is working with a team of cross-industry players to design a framework for a verifiable, credible, and universally accepted industrial emissions assessment. Rooted in the GHG Protocol, COMET will support and enhance existing initiatives by integrating—not replacing—existing methodologies intended to cover specific sectors or use-cases and make GHG disclosure comparable and reliable for mineral and industrial supply chains.

By becoming widely accepted across the industry, the COMET Framework will, in turn, improve the harmonization of emissions accounting across value chains, including at the level of financial institutions for which investments within COMET’s scope account for a significant proportion of their financed emissions and emissions reductions. The COMET Framework will be integral to the further development of financial industry standards, such as IFI TWG and PCAF, as the fundamental and universally accepted industrial emissions assessment. As such, COMET will develop in alignment with the progress in the financial sector to build a holistic framework of GHG accounting and reporting that is harmonized across countries, corporations, and financial institutions. Only when this harmonization is achieved can carbon emissions and climate action be accurately quantified and assessed and progress towards the necessary global neutrality be properly understood.

35 Andrew Howell and Jun Hao Goh, *Investor Guide to Climate Institutions* (Emerging Markets Investors Alliance, February 18, 2021), <https://www.eminvestorsalliance.org/content/investor-guide-climate-institutions>.

36 Johanna Lehne and Felix Preston, *Making Concrete Change: Innovation in Low-carbon Cement and Concrete* (London: Chatham House, June 13, 2018), <https://www.chathamhouse.org/2018/06/making-concrete-change-innovation-low-carbon-cement-and-concrete>.



The Coalition on Materials Emissions Transparency (COMET) is an initiative between the Columbia Center on Sustainable Investment (CCSI), the Payne Institute for Public Policy at the Colorado School of Mines, and RMI.

Design: Michael Morgan

COMET accelerates supply chain decarbonization by enabling producers, consumer-facing companies, investors, and policy makers to better account for greenhouse gas (GHG) emissions throughout materials supply chains, in harmony with existing GHG accounting and disclosure methods and platforms.

[cometframework.org](https://cometframework.org)