



CLUSTER EVALUATION

Building a Green Future:

EBRD's Investments in the Decarbonisation of the Built Environment (2016-2022)

Regional

IEvD ID: SS23-202



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Abbreviations

| | | | |
|-----------------------|---|----------------|---|
| ABI | Annual Bank Investment | HQ | EBRD Headquarters |
| AESR | Annual Environmental and Social Reporting | IEA | International Energy Agency |
| BREEAM | Building Research Establishment Environmental Assessment Method (certificate) | IFI | International Financial Institution |
| CA | Central Asia | KPIs | Key Performance Indicators |
| CEB | Central Europe and Baltics | LEED | Leadership in Energy and Environmental Design (certificate) |
| CoO | Country of Operations | MDBs | Multilateral development banks |
| CO₂ | Carbon Dioxide | MEI | Municipal and Environmental Infrastructure |
| CSD | Climate Strategy and Delivery | MRV | Green Monitoring, Reporting and Verification system |
| DFI | Development Finance Institutions | NCBI | Net Cumulative Bank Investment |
| EBRD | European Bank for Reconstruction and Development | NDC | Nationally Determined Contributions |
| EDGE | Excellence in Design for Greater Efficiencies (certificate) | NZEB | Nearly Zero Emission Building |
| EE | Energy efficiency | PPP | Public-Private Partnership |
| EEC | Eastern Europe and Caucasus | RO | Resident office |
| ESAP | Environmental and Social Action Plans | P&T | Property & Tourism |
| ESD | Environmental and Social Department | SCF | Strategic and Capital Framework |
| ETI | Expected Transition Impact | SEE | South-Eastern Europe |
| EU | European Union | SEMED | Southern and Eastern Mediterranean |
| IEvD | Independent Evaluation Department (EBRD) | SSF | Shareholder Special Fund |
| GCAP | Green City Action Plan | SIG | Sustainable Infrastructure Group (EBRD) |
| GEFF | Green Economy Financing Facilities | SO | Sub-operation |
| GET | Green Economy Transition | TC | Technical Cooperation |
| GEI | Gender Inclusion Team | TCFD | Task Force on Climate-Related Financial Disclosure |
| GHG | Greenhouse Gases | TIMs | Transition Impact Monitoring System |
| GPMP | Green Project Monitoring Plan | TQ | Transition Quality |
| GrCF | Green Cities Framework | ToR | Terms of Reference |
| GrCP | Green Cities Programme | WB | Western Balkans |
| | | ZEB | Zero Emission Building |

Executive Summary

Introduction

The decarbonisation of the construction and buildings sector is crucial for addressing the global climate emergency. Buildings are responsible for more than one third of carbon emissions worldwide and progress in greening the sector to meet net-zero objectives has been limited so far. Internally, supporting decarbonisation across the built environment is a key thematic area under the EBRD's Green Economy Transition (GET) 2.1 Approach, as well as a critical component for several country and sector strategies.

The objective of this cluster evaluation is to provide evaluative evidence of the effectiveness and efficiency of the Bank's approach to the decarbonisation of the built environment. It covers 11 mature investment projects with private and public sector clients, all validated on-site, in five countries where the Bank has supported the decarbonisation of the built environment. The cluster evaluation sample only includes projects that the Bank has directly financed. It excludes the Bank's support for decarbonisation via intermediated green finance lines with partner banks, equity projects (with one exception) and public-private partnership (PPP) projects involving green buildings. The objective was to assess what progress the EBRD had achieved within the cluster of similar projects and to identify common themes, challenges, insights and lessons to be used in future operations.

Relevant to the strategy, but mixed coherence and additionality

The cluster projects demonstrated alignment with the Bank's strategies, showing significant strategic relevance and relevance to the client's needs. The Bank's approach, as outlined in the GET Approach and subsequent GET 2.1 Approach, has identified decarbonisation of the built environment as a key priority area.

However, they were less coherent with the wider objective of accelerating and scaling up the decarbonisation of the built environment. Strategic documents were broad and generalist, providing limited guidance on expected results and temporal targets. There were some policy engagement actions directly or indirectly associated with cluster projects in two out of five cluster countries, though it is too early to observe the results. There is evidence of policy engagement in other geographies and adjacent sectors, such as the decarbonisation of the cement industry.

Additionality of cluster evaluation projects was mixed. The additionality of projects with large international corporates was not always clear. These clients could attract financing, whilst their pre-existing standards and expertise on green buildings was broadly equivalent to or exceeded what the EBRD expected. It is difficult to conclude that the EBRD's involvement had significant material changes on either scope or environmental outcomes, particularly when other Multilateral Development Banks were also involved.

The additionality for the cluster's public sector clients and local private sector clients was stronger. There was more evidence that the EBRD's financing was not available from other sources. Particularly with public sector clients, the EBRD's expertise and support on decarbonisation and adjacent areas was a significant advantage. Mobilisation trends were on par with the Bank's overall portfolio and the cluster projects did not offer any unique insights in this domain.

The Bank's approach: construction in progress?

Based on the evidence from cluster projects, it is unclear how the Bank's current approach enables it to adequately

identify, incentivise, prioritise and monitor the most environmentally impactful projects in the decarbonisation of the built environment. These limitations mainly relate to weaknesses in the Bank's ex-ante modelling of environmental outcomes for decarbonisation projects, based on often inappropriate assumptions or poorly developed models that would benefit from a greater quality of scrutiny.

Ex-ante modelling of environmental outcomes is a critical component of decarbonisation projects. Modelling should support the Bank's investment decision-making and provide a benchmark to monitor progress and measure success. **It is not currently the case and ex-ante green results are not part of investment decision-making.**

Projects within the evaluation sample demonstrated a range of problems within their ex-ante modelling. Whilst IEvD recognises that even "perfect" models will not always predict results, the cluster evaluation sample included inaccurate assumptions, an inconsistent approach between projects and poor communication of how projects deliver environmental impact. In some cases, environmental savings were overestimated by a factor of 20 or underestimated by a factor of 6.

Ex-ante environmental targets identified for cluster projects form neither a good basis for investment decision-making, nor enable a framework for assessing implementation. In addition to affecting internal processes, ex-ante environmental targets are used in external reporting of the Bank's environmental impact. Inaccurate forecasts undermine the Bank's capacity to communicate its impact and raise the perceived risk of over-reporting. This appears to be an industry-wide challenge.

Internal incentives are not aligned with better environmental outcomes. Although corporate climate governance attributes have gained more traction in the Expected Transition Impact (ETI) system in the last several years, neither the GET approach nor the ETI system appear to distinguish comprehensively between "good" and "best in class" decarbonisation projects. This

means Banking teams are not incentivised or rewarded for more impactful projects, which raises the risk that potential opportunities to expand the environmental impact are being left on the table.

Some delivery of project objectives, but limited contribution to wider systemic impact

As part of the evaluation, IEvD visited selected sites that have been developed with the EBRD's financing across all 11 projects, accompanied by green buildings experts. This process confirmed that actual construction and renovation financed by EBRD was generally high-quality and in line with international standards. This provided an extra layer of verification where projects had not yet received their external green certification or, in the absence of that, annualized data on energy and resource consumption and costs.

IEvD recalculated environmental savings for six projects where data was available. The revised estimate for CO₂ savings was 15,429 tonnes per year, against the Bank's original forecast of 28,643 tonnes – a 46% difference. This divergence was driven both by weaknesses within the ex-ante modelling (e.g. the original target was unrealistic) and the reduced scope and delayed delivery due to challenges in implementation.

Private sector projects performed better than public sector projects. The latter faced delays and cost overruns, which was attributable to low capacity in implementing partners and challenges in the political economy in regard to allocating resources for the renovation of public buildings. This is a substantial drawback in the current situation where accelerating decarbonisation is critical.

Beyond direct environmental savings, the cluster projects delivered a range of other benefits. These include wider environmental benefits, such as support provided to clients on their corporate climate governance, as well as some contribution to other Transition Qualities (TQs) – primarily Inclusive and Competitive.

Outside of the TQs framework, the evaluation team also observed the important behavioural changes and quality of life improvements that investments in decarbonisation can provide, particularly in public sector projects. End-user beneficiaries noted that better heating for municipal buildings, such as schools, and improved aesthetics provide a greater sense of well-being. These form a major part of the rationale for why local stakeholders are enthusiastic about green building projects. Beneficiaries who successfully completed deep renovation processes demonstrate changed behaviour practices and offer role models for peers. These important results remain largely undetected through existing monitoring and reporting instruments.

There was limited evidence of systemic change. The EBRD has been active in policy dialogue in the energy efficiency area, including the building sector, in one country and in capital market reforms to help enable greater flows of financing in green buildings in two other countries. Policy engagement directly targeting national gaps in the decarbonisation of the built environment are rare in the cluster countries. Increasing activities in this area, building on top of the Bank's experience as a financier, represents a major pathway through which the Bank can contribute to wider systemic change. The evaluation team observed that in some cases, projects had supported 'local champions' in green buildings, but it was not clear whether that led to a wider demonstration or replication effects. These effects are essential as all clients noted a significant shortage of adequate suppliers of construction materials, works, services and skills across the entire cycle of construction, building certification and building management that are required to comply with net-zero standards.

Recommendations

Strategic Recommendation 1:

To respond to the climate emergency and to speed up the decarbonisation of the built environment, the EBRD should use a more refined approach to encourage clients to achieve a faster and bigger transition

impact (TI) and to prioritise the most impactful projects. The current approach does not push clients enough to deliver green buildings at scale and/or improve their standards. The Bank should show how it adds value and contributes to wider market effects in delivering environmental outcomes that would not happen otherwise, especially for private sector clients who can get other funding sources.

Strategic Recommendation 2:

The EBRD should use its advantage as a green building investor to support the whole process of making the built environment low-carbon, including policy dialogue and capacity building. This area is critical to addressing the climate emergency and it is a significant part of the Bank's portfolio. Without employing more ambitious and more consistent policy dialogue, in collaboration with other key stakeholders, the Bank is often missing opportunities to leverage the impact of its investments and contribute towards systemic change. The Bank should use the existing Green Building Knowledge Hub in the Climate Strategy and Delivery (CSD) and technical experts in other departments, especially Sustainable Infrastructure Group (SIG), to create a champion to lead this topic and coordinate different teams to work on green building projects.

Operational Recommendation 3:

Develop a more sophisticated method for ETI scoring that can differentiate between various national situations in the building and construction sector, as well as between the kind of investment project – greenfield or brownfield – and the degree of intended green building certification (from basic to advanced). This will address the current situation where neither GET nor ETI identifies and incentivises more impactful projects and it will help close potential missed impact opportunities. EBRD's capacity to refine GET methodology relies on changes to cross-Multilateral Development Bank (MDB) methodology.

Operational Recommendation 4:

Building on top of recent improvements in the quality of CO₂ modelling, implement changes to CO₂ forecasts so that it can help inform investment choices and improve learning from the Bank's investments.

Possible changes to make carbon dioxide (CO₂) modelling data more consistent, comparable and transparent include using a pro-rata methodology that is scaled for EBRD's financing to provide a more accurate depiction of what environmental results the Bank's financing has led to; using a consistent approach for all projects to establish better comparability; making results frameworks match the models used in projects; and providing easier access through the EBRD systems or showing the reasoning behind CO₂ figures as part of the Board approval process.

1. Evaluation approach and context

1.1. The importance of making buildings greener

1. The construction and buildings sector (or built environment) accounts for 37% of greenhouse gas (GHG) emissions worldwide,¹ with energy demand continuing to grow. The built environment sector is one of the areas with the greatest gap between the global 2050 zero carbon target and the current status quo. Globally, there is an urgent need to recalibrate the entire production and operational cycle of the industry to make it greener and more sustainable. The State of Climate Action 2022 Report suggests that to comply with the goal of keeping the global temperature rise to below 1.5°C, *“the energy intensity of building operations should be improved five times faster for commercial buildings and seven times faster for residential buildings.”²*

Definitions:

The built environment represents a combination of public and private buildings, along with the life-cycle construction activities– from design, to construction, operation, occupancy and end of life. In this report, it is also used as a synonym for the construction and buildings sector.

The decarbonisation of the built environment covers a wide range of methods to reduce human-made GHG emissions related to the buildings themselves, including the sourcing of building materials, construction, ongoing operation and maintenance and decommissioning. The EBRD’s focus is typically on how to support decarbonisation of ongoing operations and maintenance of the built environment.

Source: IEA

2. International efforts are increasingly focused on addressing this critical component of the climate emergency. Nationally determined contributions (NDCs) often set out detailed plans for reducing GHG emissions from the built environment. There is also a growing amount of legislation at a supranational level, particularly in the European Union (EU), providing momentum for the shift towards greener buildings. International partnerships, such as the Global Alliance for Buildings and Construction and the World Green Building Council, also play an important role in developing internationally recognised frameworks, promoting a common approach and providing a platform for sharing knowledge and expertise.

3. Within the built environment sector, the situation in the EBRD’s countries of operation (CoOs) is challenging. The EBRD’s transition report 2023-2024 highlighted the old building stock in many CoOs, as well as the high emissions intensity of energy compared to advanced EU economies.³ Although energy use and emissions per capita from the built environment is lower in the EBRD’s CoOs than the EU average, energy usage per square metre in buildings is higher and GDP per unit of CO₂ is lower. This reflects the barriers to energy efficiency.

¹ Data by IEA, as presented in UNEP’s 2022 Global Status Report for Buildings and Construction

² World Resources Institute (2022), The State of Climate Action 2022, available at <https://www.wri.org/research/state-climate-action-2022>.

³ EBRD (2023), Transition Report 2023/24, Transitions Big and Small.

1.2. The EBRD's role in supporting decarbonisation

4. The built environment has become a key thematic area in the Bank's approach to supporting the GET. The former Green Economy Transition (GET) Approach (BDS15-196) was implemented between 2015-2020, when most of the projects within the evaluation sample were approved. It highlighted the role of investments and policy dialogue for buildings and set out a plan for the Bank to continue scaling up activities in this area.

5. The current GET 2.1 Approach emphasised decarbonisation of the built environment as one of ten thematic intervention areas where the Bank would focus its support.

Box 1: Approach to Green Buildings by other MDBs

Some other MDBs have also prioritised support for green buildings, in recognition of the pivotal role that the built environment sector plays in addressing the climate emergency.

- The IFC has taken a prominent role through the design and implementation of its EDGE (Excellence in Design for Greater Efficiencies) certification programme, in addition to its direct provision of financing.
- The European Investment Bank (EIB) has made climate action a central part of its lending strategy, with a significant focus on sustainable buildings. In providing financing, the EIB also supports the development of national building standards which aligns with wider EU regulations.
- The Asian Development Bank (ADB) and the African Development Bank (AfDB) have less emphasis on green buildings in their strategic documents. Whilst both mention support towards energy efficiency in buildings and both have a wider strategic objective to support the green transition, support for green buildings is less of an immediate priority.
- Several projects within the cluster evaluation sample were either co-financed with other MDBs (IFC and EIB) or received financing for similar project purposes.

6. Between 2014-2022, support for decarbonisation of the built environment has been a significant area of investment for the EBRD. It represented an annual bank investment (ABI) of at least €350 million of signed projects each year, ranging from 4.2% to 8.8% of total Bank investment. A total of 163 projects were identified in the evaluation period set to 2016-2022.⁴ Annex 1 offers a detailed portfolio analysis of this segment.

7. Within the Bank, support for decarbonisation of the built environment is a cross-cutting service in both banking and non-banking teams. They provide direct or indirect financing of decarbonisation of the built environment, Technical Cooperation (TC) and non-TC financing, as well as a policy toolkit for national and municipal stakeholders. There is a significant stream of work via Partner Financial Institutions (PFIs) and Green Economy Financing Facilities (GEFFs) that offer financing to clients to help make business and private buildings less carbon intensive and more resource efficient. Equity and (green) bonds financing are available,⁵ as well as PPP solutions in some sectors (such as health and transport). For the purposes of this cluster

⁴ The evaluation period has changed from the Approach Paper (2014-2022) to the final report (2016-2022) due to the availability of mature and relevant projects for evaluation. Findings in this report are based on the analysis of 11 projects approved between 2016-2022.

⁵ At the time of this report, IEvD was finalising cluster evaluation of Green Bonds.

evaluation, several similar direct lending operations were selected. Therefore, engagement will be most meaningful with three banking teams: Property and Tourism, Municipal Services and Agribusiness.⁶

8. Overall methodological guidance and support is provided by the Bank's Climate Strategy Delivery (CSD) department, which hosts a dedicated Green Buildings Knowledge Hub. The Environmental and Social Department (ESD) validates ex-ante GET financing, manages the design and reporting of Environmental and Social Action Plans (ESAPs) and ensures their monitoring and reporting. It also oversees the recently launched Green Monitoring, Reporting and Verification (MRV) system. The Impact team calculates ETI and monitors transition results. Increasingly, the Gender and Economic Inclusion (GEI) team is active in the portfolio, as green investments integrate equality and inclusion approaches. A dedicated expert hub in SIG provides technical support for the public buildings portfolio, while the Legal Transition Team (LTT) has energy efficiency practice. The LTT also recently established climate governance practice (through Sustainable Finance Governance and Regulation Unit, jointly with CSD). Finally, the Procurement Policy and Advisory Department (PPAD) plays an important role in supporting procurement for public sector projects. Banking teams – for both sector and country – are leading relationship management with the client and coordinating activities for all the aforementioned departments.

1.3. Purpose, scope and evaluation questions

9. The purpose of this cluster evaluation was to assess what progress has been achieved by the EBRD across the sample of projects in the area of decarbonisation of the built environment. Using a cluster approach helps identify common themes, challenges, insights and lessons that can inform the future design, implementation and monitoring of projects in this domain.⁷ The focus of this evaluation is on investment activities, policy dialogue and an associated TC portfolio. This is mostly transaction-related to ensure appropriate design, implementation, monitoring and oversight.

10. The overarching evaluation question is: “To what extent has the EBRD’s ambitions of decarbonisation of the built environment been achieved?”

11. Specific evaluation questions are:

- 1. To what extent are EBRD’s investments, technical co-operation (TC) and policy dialogue in the decarbonisation of the built environment additional and aligned with the challenges and needs of the clients and countries/municipalities of operation?**
- 2. Is EBRD’s approach to the decarbonisation of the built environment efficient and how has it evolved over time?**
- 3. What are the results of EBRD’s investments and, when relevant, TC and policy dialogue activities, what is their sustainability and how do they vary across sectors and geographies?**

12. The Methodology of this cluster evaluation is presented in Annex 2 and the Evaluation Matrix is in Annex 3.

⁶ There is a small number of investment projects in other sectors, for example Telecommunication, Media and Technology (TMT).

⁷ Linda G Morra-Imas, Ray C. Rist (2009), The road to results: designing and conducting effective development evaluations, pp.188-189.

Key elements of the methodology include:

- Desk review of available project documents and related country and sector strategic documents, evidence of associated policy dialogue and TC delivery.
- Semi-structured interviews with 39 bank staff, 42 representatives of clients and 13 in-country stakeholders (In total 94 interviewees).
- Site visits to all cluster projects with seven clients in five CoOs, with the purpose of validating the actual results of decarbonisation activities at selected sites.
- Support of independent certified experts in green buildings, who produced detailed site reports, as well as background information on national regulatory environment and green certification.
- Recalculation of green results vis-à-vis ex-ante estimates using a methodology designed by the EBRD. It includes amounts of financing, CO₂ emission levels and energy use.
- Analysis of the use of green building certification schemes for GET methodology.

13. The report presents synthesised findings and recommendations from evaluating the cluster of the purposefully selected sample of 11 investment projects (out of a qualifying pool of 163) with seven clients in five CoOs.⁸ These investment operations represent three key sectors: (i) property and tourism (P&T); (ii) municipal services; and (iii) agribusiness. They are similar across key parameters, such as operational and transition objectives, target sectors and implementation of strategic priorities. They represent most of the Bank's geographies: Central and Eastern Europe (CEE), Western Balkans, Greece and the Eastern Europe and Caucasus (EEC). They are primarily focused on reducing carbon footprints and enhancing energy and resource efficiency through greenfield investments and the modernisation of existing building stock. The portfolio did not include the Bank's indirect support for decarbonisation via intermediated green finance lines.

1.4. Evaluation limitations

14. This evaluation did face some limitations, which affected the IEvD team's capacity to draw key findings. Most importantly, the quality of monitoring and reporting data was poor, comprising of either incomplete or unverified data. Overall, evaluability was also affected by weaknesses with how the Bank calculated environmental targets for projects (see section 3.2), which undermined the evaluation team's capacity to assess whether projects' objectives had been achieved successfully.

15. IEvD engaged with clients directly and was able to collect additional data, but clients were unwilling or unable to provide data on buildings' energy usage in some cases. This affected the team's capacity to prepare revised estimates of CO₂ savings.

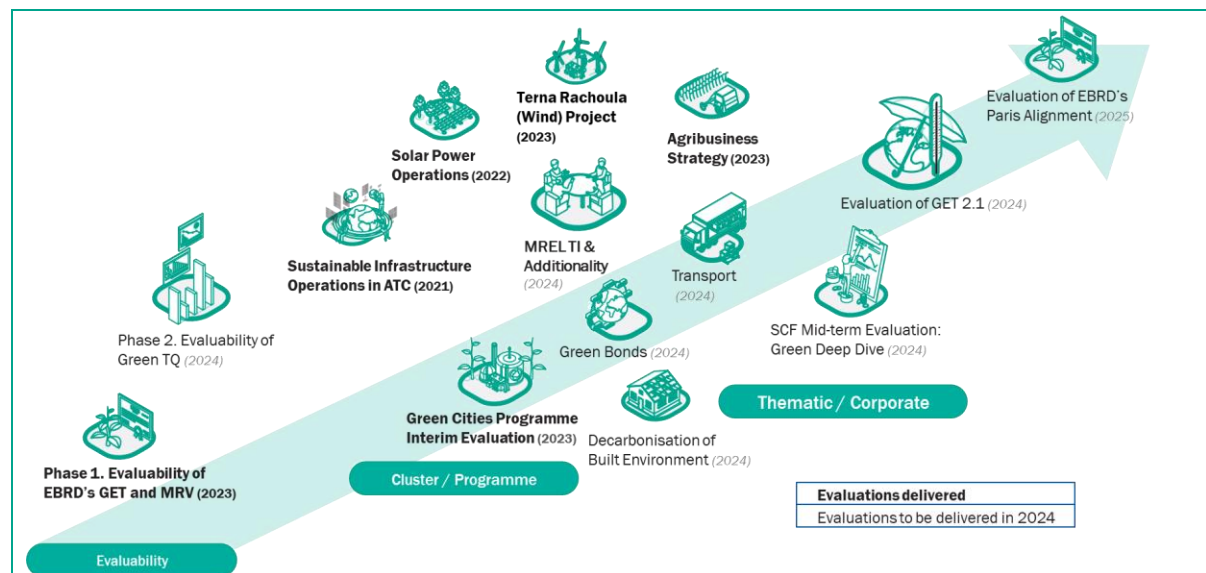
16. The evaluation team also had difficulties getting access to the relevant teams of other MDBs active in the field, despite multiple attempts. Therefore, content related to comparators is modest and based on document reviews only.

⁸ The Approach Paper identified 12 investment projects to be evaluated. However, one project in Jordan was not included at the end, which somewhat reduces the geographical representation of the cluster. Its exclusion does not negatively affect the representativeness of other important parameters of the cluster. Physical verification was impossible as travel to Jordan was challenging at the time of evaluation (Autumn 2023).

1.5. Connection with other green evaluation products

17. This evaluation has been conducted in the framework of IEvD's mid-term Strategic Plan. It is aligned with the priorities of the EBRD's Strategic and Capital Framework 2021-2025, where green is one of the priorities. Findings, recommendations and suggestions from this cluster evaluation are interconnected with other IEvD green products that have recently completed or are about to be completed soon. IEvD ensures that they are coherent and non-contradictory. Figure 1 illustrates this green nexus.

Figure 1: IEvD's green products



1.6. Carbon footprint of evaluation

18. IEvD attempted to calculate the carbon footprint of this evaluation. Considering the topic, the team felt it is important to factor in additional CO₂ emissions connected to conducting the evaluation.

19. This is a tentative approach and IEvD plans to generalise its internal CO₂ calculations in line with the EBRD's corporate green commitments. Streamlining this practice would help create a benchmark for IEvD. The calculations resulted in total of 16.1 tonnes of CO₂ as a carbon footprint of this evaluation (Annex 4 contains the calculations).

2. Relevant to the strategy, but mixed additionality

2.1. Relevant to EBRD priorities, but not always coherent with the Bank's systemic approach

20. The cluster projects demonstrate relevance to EBRD's strategic priorities, starting with those stated in higher level strategies and approaches. The Bank's approach and priorities in this area derive from the GET 2.1 Approach (and previous iterations), which is anchored in the green priority of the EBRD's Strategic and Capital Framework 2021-2025.⁹ Both GET 2.1 and the original GET Approach (BDS15-196) prioritised support to buildings' energy efficiency. The GET 2.1 Approach prioritised decarbonisation of the built environment as one of ten thematic intervention areas where the Bank would focus its support, whilst the original GET Approach similarly described how the Bank would support the energy efficiency of buildings.

21. Relevance also extends to other strategic frameworks, as support for the decarbonisation of the built environment has also been emphasised within sector strategies, as well as in country strategies in most cases. The 2019 Property and Tourism Strategy and 2019 MEI Strategy (BDS19-147 and BDS19-069, respectively), for example, both continue to prioritise support for the decarbonisation of the built environment. The MEI Strategy outlined the role of the Green Cities Framework (GrCF) in scaling up these investments, whilst the Property and Tourism Strategy put an increased emphasis on creating demonstration effects by supporting the development of sustainable green buildings across all sub-sectors. The 2018 Agribusiness Sector Strategy (BDS18-166/F) does not put an emphasis on green buildings per se, however it does have an overarching ambition to increase energy efficiency and reduce CO₂ emissions across the value chain. Many country strategies in the cluster sample emphasise support for energy efficiency in buildings specifically. Others have robust indirect links, often as part of a wider strategic priority on supporting GET.

22. The coherence of the cluster projects with the Bank's intended approach to policy dialogue in the five cluster countries is mixed. The original GET Approach, under which most of the projects were funded, placed a strong emphasis on policy dialogue to support green building investments, whilst GET 2.1 explicitly took a systemic approach which is built around policy interventions. In that respect, two cluster projects had a direct link to wider policy dialogue initiatives that the Bank was supporting and two are part of Green Cities Programme with the intended comprehensive approach towards policy actions at municipal level (in the form of Green City Action Plan). However, evidence was scarce and feedback from stakeholders and clients did not always include perceived benefits from policy engagements. A cluster evaluation approach has limitations to comprehensive mapping of systemic policy engagement due to its focused bottom-up methodology.

⁹ EBRD Strategic and Capital Framework 2021-2025, BG29/3.

2.2. Strong relevance to clients' needs and demand driven by commitments and regulatory requirements

23. Relevance to clients' needs and wider municipal and national priorities is strong in all projects. Evidence from interviews and document reviews proves that clients have overarching decarbonisation objectives that are either anchored to national strategic priorities (such as NDCs), municipal strategic frameworks (such as a Green City Action Plan (GCAP)), or their own strategic documents (private sector clients' Corporate social responsibility (CSR) strategies).

24. Private sector clients confirmed that their primary motivation to collaborate with the EBRD was *“alignment of our priorities with those of the Bank”* and that *“EBRD's commitment to the green transition is exemplar and since we want to work with the best, it was a great match.”*¹⁰ This alignment is especially evident with repeat clients that gradually introduced several more ambitious targets and policies relating to decarbonisation. The dynamics of these changes is aligned with the increasing pace of the decarbonisation drive in the EU, where clients need to comply with new legal and regulatory requirements, such as Green Taxonomy. When formulated properly, successful client stories could have positive demonstration effects for the market.

25. Public sector clients expressed similar opinions about the relevance of EBRD's support, although alignment was at different strategic levels for some of them. For example, the Bank's engagement in Moldova to address the country's energy security issues adds value for municipal decarbonisation projects, while the Bank's added value in Lithuania is in supporting green capital markets. The three cities hosting public sector projects that were assessed in this cluster (Vilnius, Sarajevo and Chisinau) are now members of the Green Cities network, with completed GCAPs or they have recently started to process its development (Vilnius, January 2024). GCAP strongly anchors relevance with the municipality's priorities and investment needs.

2.3. Mixed additionality of EBRD's activities

26. Cluster projects demonstrated mixed additionality. There was stronger additionality for locally based private sector and public sector clients and weaker additionality for multinational private sector clients. The rationale provided in project documents was based on both financial additionality and non-financial additionality and particularly the use of EBRD standards and technical expertise to help develop and advance green buildings.

27. The financial additionality of loans to large corporate groups was unclear Particularly in cases where loans were guaranteed by the parent group holding companies or were made at the corporate level, rather than a local subsidiary level, or where companies have long, pre-established relationships with a wide range of financial institutions and Development Finance Institutions (DFIs)/International Financial Institutions (IFIs). This means they were able to attract financing from other commercial sources on terms not dissimilar to the EBRD. The substantial investment programmes of companies provide good confidence of their capacity to raise and deploy commercial capital.

28. There was clearer financial additionality amongst local private sector clients and public sector clients. With these client groups, there is good evidence that there were limited alternative

¹⁰ Interviews with the clients.

sources of financing with similar terms to what the EBRD was offering – specifically tenor, repayment structure and the joint-venture equity.

29. There was a similar pattern with respect to non-financial additionality centred on providing expertise and raising standards for green buildings. Private clients prioritised green buildings and have deep in-house knowledge of how to support the decarbonisation of the built environment. EBRD had an exchange and information sharing on energy efficiency in buildings, with clients referring to the EBRD's role as *"a technical sound board"*. At the same time, their development plans already broadly met or exceeded the EBRD's requirements.

30. There was a clear rationale and more evident impact of the EBRD's non-financial additionality for public sector clients regarding green buildings expertise. All clients noted that the EBRD's requirements and its understanding of different certification schemes, implementation and procurement technical support and expertise all added value and significantly influenced how projects were designed and implemented.

31. There were some examples of non-financial additionality outside the Bank's expertise on green buildings. Knowledge of the countries, business climate and the EBRD's significant presence on the ground provided the clients with a degree of comfort and reassurance, thus helping mitigate political risks. Also, the EBRD used decarbonisation projects as a pathway to introduce new inclusion, skills and employment measures in clients' operational and strategic plans (for example, a corporate social responsibility strategy and green corporate governance standards and practices). Those were highly additional to the client's growth-oriented needs.

32. Mobilisation was on par with the Bank's overall portfolio. Analysis of these cluster projects, including the interviews did not offer any significant insights into the process and outcomes of mobilisation.

3. The EBRD's operational approach to decarbonisation: Construction in progress

3.1. A cross-cutting approach to building green

33. As part of this evaluation, IEvD used the cluster projects to understand the EBRD's operational approach to the decarbonisation of the built environment. Insights from interviews with all clients and Bank specialists offered different perspectives on what is working, what is not and what can be improved going forward.

34. All clients referred to Banking teams as key partners for day-to-day support. Clients appreciated the EBRD's expertise on the ground and the Bank's advisory capabilities when the markets are not ready for clients' standard of operation. One client noted that “[*certain standards are very difficult to push in some countries. EBRD's advice and support in activities with the suppliers enables us to maintain our corporate standards in each country.*”

35. Bank specialists based locally were able to offer more time for project supervision and attend face-to-face meetings, often speaking the local language, which was highly appreciated. ESD and expert procurement support is highly rated by public sector clients. All private sector clients noted the significant role of ESD experts in helping them understand the supply chain challenges, for example in solar photovoltaic (PV) technology, including how to integrate proper integrity standards to ensure the use of ethical suppliers and compliance with international regulations.

36. There are some elements of EBRD's core operational model that clients found challenging to fit into their own planning cycles. Lengthy approval process for each disbursement and a continued inability to accept electronic signatures were the most quoted areas for improvement going forward. Clients noted that knowing what documents are required by the Bank for approvals in advance would substantially shorten the submission and approval process, which for many currently seems ad hoc (new documents are required after submission is done).

37. EBRD is recognised as the go-to place for questions related to raising the ambition of decarbonisation projects. Private sector clients have in-house expertise and use the software capabilities of voluntary green building certification schemes to identify the most cost-efficient decarbonisation techniques. However, they still might refer to EBRD's experts for practical solutions and pathways to lower energy/resource use and lower carbon intensity for the given geographical location and regulatory regime, while maintaining profitability.

38. IEvD's review of the Bank's operational model and analysis of how the Bank forecasts and reports on environmental results highlighted areas where improvements should be made to achieve a greater impact. This analysis demonstrated several major weaknesses in key processes that undermine the Bank's capacity to maximise its potential environmental impact in this important strategic area.

39. The three areas of concern noted below are detailed further in upcoming sub-chapters:

- **Insufficiently accurate and robust operational objectives and environmental outcomes inform the decision-making process.** More broadly, this pertains to whether the Bank has

adequate information to ‘do the right thing’ and make the right decisions with respect to how to deploy financing to maximise environmental impact in this space.

- **Misaligned internal incentives to reward the most environmentally impactful projects.** More specifically, whether the GET and ETI methodology for the decarbonisation of the built environment differentiates sufficiently between ‘good’ and ‘best in class’, as well as between absolute reductions in emissions versus relative reductions.
- **Poor capacity to course-correct based on monitoring data.** Using results frameworks and monitoring data to assess whether a project is being implemented successfully or not and acting if it is the latter.

3.2. EBRD is not well-equipped to provide sound information for investment decision-making in this area

40. **To support the decision-making process for decarbonisation projects, both the Board and Management require a clear description of operational objectives and a forecast of environmental outcomes.** This data provides a sense of what EBRD’s financing is being used for, what business results the client is aiming to achieve and how the Bank expects this project to support the GET. Within the 11 cluster projects reviewed by IEvD, there were seven projects where unclear data was provided at this stage with respect to what projects were going to deliver (see Table 1).

Table 1: Comparing apples with apples?

IEvD’s summary of the robustness of ex-ante environmental targets (estimated CO₂ savings)

| Project | Reliable target | Comment |
|---------|-----------------|---|
| 1 | Yes | |
| 2 | Yes | |
| 3 | Yes | |
| 4 | Yes | |
| 5 | No | Inaccurate estimates on building usage |
| 6 | Yes | |
| 7 | No | Target not reflective of entire project |
| 8 | No | Target not reflective of entire project |
| 9 | No | Target not reflective of entire project |
| 10 | No | No breakdown between renovations and new builds |
| 11 | No | Combined with another project, with no breakdown within approval document |
| 12 | No | Combined with another project, with no breakdown within approval document |

Source: Project documents, IEvD compilation.

41. **A core part of how projects in the decarbonisation of the built environment are appraised and presented at the Board relates to their environmental outcomes.** These are based on models and calculations developed within the Bank. Weaknesses within models can give highly inaccurate forecasts on green outcomes, potentially jeopardising investments into ‘good’ prospects (if benefits are underestimated) and promoting weak ones (if benefits are overestimated).

42. IEvD's review of the cluster evaluation projects highlighted poorly chosen assumptions, incomplete models and an inconsistent approach across different projects. These weaknesses are compounded by poor accessibility of underlying calculations and limited mechanisms to easily scrutinise how environmental forecasts are developed.

43. Two projects illustrate how inappropriate assumptions can lead to inaccurate forecasts. In one case there was gross misassumption of the number of employees per square metre, and premises temperature required. Unsurprisingly, estimated water savings from the first project were 21 times higher (a result of the assumption that there would be a huge number of employees), whilst CO₂ savings were six times lower (as the first project assumed limited heating within premises).

Table 2: Inconsistent environmental modelling – comparing two projects

| Project | GET ratio | Estimated floorspace financed by EBRD (from GET modelling) | Forecast of CO ₂ reduction (tonnes per year) | Forecast of water saved (m ³ /y) |
|---------|-----------|--|---|---|
| 1 | 85% | 210,840 sqm | 604 | 128,020 |
| 2 | 100% | 272,727 sqm | 3,598 | 6,058 |

Source: Project documents, IEvD compilation.

44. There were several inconsistencies in the Bank's modelling approach across the projects reviewed by the IEvD for this exercise, despite the shared theme of supporting the decarbonisation of the built environment. In effect, this means that there is limited value in comparing projects or analysing data at the portfolio basis; differences are primarily driven by different methodologies, rather than by underlying characteristics of projects. Conversely, employing the same approach provides value to decision-makers by enabling comparability. Comparable forecasts on environmental outcomes can then become the foundation when exploring which projects are most cost-effective and impactful.

45. The most concrete example of an inconsistent approach is whether environmental outcomes were calculated based on the entire project, or just the EBRD's contribution. From the 11 projects, four projects were assessed with respect to total project value, whilst seven were assessed with respect to the EBRD's contribution. IEvD was not able to identify any reasons for differences in the approach employed. IEvD has suggested before that forecasts scaled for the EBRD's contribution would be the most robust mechanism to ensure comparability across projects.¹¹

46. Another issue within the environmental outcome modelling was whether outcomes were forecast for all the Bank's financing, or just a component. When it is the latter, this means that forecasts are effectively underestimating environmental outcomes, potentially influencing investment decision-making.

47. Several projects with the same client provide a tangible example of this situation. For the first projects, environmental forecasts were developed based on two sub-projects that accounted for 32% of the Bank's financing. The project extension applied a similar approach, using an environmental forecast from a single sub-project that the EBRD had already committed financing to before the approval of the extension. As such, it provides no real value as a forecast for what

¹¹ IEvD (2023) SS21-169 Supporting Green Transformations in Municipalities: the EBRD Green Cities Programme interim evaluation (2016–21), IEvD (2023) SP23-028 Design and utility of CSDRs Synthesis of findings and illustration with the case of Uzbekistan and IEvD (2021) SS20-158 Sustainable Infrastructure Operations in Advanced Transition Countries.

environmental outcomes the EBRD expected its financing to contribute towards. **Scrutinizing the environmental modelling becomes more challenging as key assumptions are rarely presented or explained at the approval stage.** For example, across the 11 project approval memorandums, IEvD could only identify one project where the assumption for the CO₂ factor was provided. Plus, in that case, the figure provided within the approval memorandum differed to what was used to calculate environmental impact.

48. Along with assumptions, there is often little underlying narrative as to how environmental outcomes have been estimated. A lack of explanation or breakdown made it challenging to understand how separate project components translated into anticipated environmental outcomes.

49. As an example, in one project, there is no breakdown between how the renovation of existing buildings and the construction of new green buildings are each expected to contribute to the target of reducing CO₂ emissions by 3,200 tonnes. The backend calculations demonstrate that the Bank expected the new green buildings to account for 41% of the Bank's financing, but only 7.5% of the emissions target. This information may have added value at the investment decision-making stage (see Box 2 on introducing transparency in carbon calculations).

Box 2: Principle of Transparency in carbon calculations

A core principle of the harmonised IFI approach to GHG accounting is transparency. In this vein, “relevant assumptions, methodological choices, references to the accounting methodologies and data sources are documented” and “assumptions and methodologies shall be recorded and made available to decision-makers within the IFI and to external stakeholders as appropriate.”

These principles have been incorporated into the EBRD's approach. The GET Handbook states with respect to GHG assessment that “it is thus essential that choices and assumptions are clearly stated to preserve the usefulness of the assessment.” The underlying reason for this emphasis on transparency is clear. As the GET Handbook notes, calculations have a subjective component and so a common understanding of key assumptions and a robust platform for scrutiny is critical.

Although backend calculations are available, these principles are not being applied in how projects in the decarbonisation of the built environment are presented for approval. Across the cluster projects, assumptions and basic calculations are rarely provided within key project documents. Data is available within backend calculation sheets for the projects covered under this evaluation, but it is often poorly explained or documented, with no narrative or rationale provided for key assumptions or inputs.

50. For the reasons summarised above, it is difficult to conclude that the environmental modelling used on these projects added real value during the investment decision-making process. The figures are not comparable on a project-by-project basis and often based on inaccurate assumptions. Perhaps unsurprisingly, the evaluation sample appears to show a *negative* relationship between the Bank's GET investment and CO₂ savings. In IEvD's view, it reflects weaknesses within the calculation process, rather than a conclusion that more bank investment leads to less CO₂ savings.

3.3. Incentive systems do not maximise environmental impact

51. IEvD's assessments show how incentives applied in projects for the decarbonisation of the built environment have a limited correlation to optimal environmental outcomes. This implies that Banking teams are not being incentivised to pursue the most environmentally impactful projects and that potential environmental impact is being left on the table. This conclusion is based on three main findings:

- Changes in how the GET ratio is calculated has led to less room for differentiation at the top-end.
- The GET ratio and the ETI do not distinguish between absolute emission reductions and theoretical emission reductions.
- Excluding embodied carbon disproportionately incentivises the construction of new buildings.

52. There are some data points that suggest how the GET ratio is calculated has become less stringent in the decarbonisation of the built environment projects. This is clear from a comparison of EDGE-certified buildings built under three different projects. Functionally, the use of proceeds across these projects was the same. However, there were major differences in how they were assessed for GET purposes, as Table 3 illustrates.

53. These differences were driven by revisions in how the Bank treats EDGE-certification for new buildings. Given that EDGE is one of the main building certification processes used by the Bank, this has significant implications for how GET is applied across this thematic area. These changes are outlined within the GET Handbook and are a result of the Bank updating its GET methodology.

Table 3: Changing GET ratios across projects with similar scope

| Project | Signing year | Use of proceeds | GET ratio | Comment |
|-----------|--------------|---|-----------|---|
| Project 1 | 2018 | Construction of EDGE-certified building | 3.5% | Based on financing proceeds towards specific green components (e.g. LED lights) |
| Project 2 | 2020 | Construction of EDGE-certified building | 60% | Based on rule within GET Handbook 2020 that if EDGE certified can say that 60% of capex is green financing |
| Project 2 | 2022 | Construction of EDGE-certified building | 100% | Based on rule within GET Handbook 2022 that if EDGE certified can say that 100% of capex is green financing |

Source: Project approval documents, IEvD compilation.

54. This change means that there is now significantly less scope for differentiation at the top-end of GET assessment for new buildings. An EDGE-certified building – implying a building that is meeting EDGE's standards of at least 20% savings in energy, water, and embodied energy in materials compared to a hypothetical baseline building of that type – is now 100% GET – as is a much more advanced, entirely carbon-zero building. The way how GET methodology is being applied – because of changes in recent years – provides a very limited incentive to bankers to go above and beyond a minimum standard.

55. IEvD understands that the Bank's approach to GET calculation is limited by the need to move in coordination with international partners, including other MDBs. Equally, changing the thresholds for what constitutes GET – as Table 3 indicates has happened in this case – changes the incentive for Banking teams.

56. The issue of using different certification models for GET 2.1 methodology is wider and includes national definitions of nearly-zero emission buildings and national Energy Performance Certification (EPC) systems for buildings. **Theoretically, they provide a clear framework for design, construction, operation and disclosure of results that are comparable and independently validated by third party.** In practice, however, definitions, methodologies and metrics vary widely from country-to-country and scheme-to-scheme, making them incomparable. Analysis of cluster projects conducted by independent technical experts during this evaluation revealed several weaknesses in application that undermine the principles of clarity, transparency and independent verification.

57. IEvD's other observation with respect to how Key Performance Indicators (KPIs), including the GET ratio and ETI, operate is that they do not differentiate between renovation projects and new build projects. Renovation projects (brownfield) lead to absolute emission reductions and new build projects (greenfield) lead to relative emission reductions when compared to a hypothetical scenario of construction without energy efficiency measures.

58. There is a strong argument that absolute CO₂ savings for decarbonisation projects in most cases are more tangible and contribute more meaningfully and quickly to addressing the climate emergency. However, this is not reflected in the GET methodology, how CO₂ savings are presented or in the ETI methodology. This implies limited incentives for Banking teams to focus on more important absolute emission reductions rather than hypothetical savings.

59. The other instrument the Bank has to reward higher-impact projects is the ETI tool. The current approach within green buildings is to provide potential building projects with an ETI uplift if they are one of the first three buildings in a country where that standard is being applied.

60. This approach provides limited room for differentiation in identifying higher value projects. Whilst it can recognise some impactful projects where a new standard is being applied for the first time, there are no mechanisms within the ETI approach to distinguish between greenfield or brownfield development, between different geographic contexts or between different standards of ambition within certification (e.g. EDGE versus EDGE Advanced). The lack of differentiation reduces the Bank's capacity to identify and incentivise the most impactful projects within this area.

61. The EBRD's approach to the decarbonisation of the built environment does not typically include embodied carbon within the calculations of environmental outcomes and targets. Embodied carbon refers to the *"emissions associated with materials and construction processes throughout the whole lifecycle of a building or infrastructure."*¹² It is a significant source of emissions; 28% of carbon emissions from buildings worldwide are from embodied carbon, according to the World Green Building Council. Green building certification schemes are increasingly focused on embodied carbon and have incorporated embodied carbon assessments into leading certification schemes, such as EDGE and Leadership in Energy and Environmental Design (LEED).

62. Excluding embodied carbon from calculations has two effects. First, it means that there are fewer options to recognise and reward reconstruction/deep retrofit projects with significant embodied carbon savings. Second, it systematically incentivises new builds (which have higher absolute embodied carbon emissions) over renovations. It also means that the Bank's approach to CO₂ calculations is not coherent with how the Bank describes its approach to green buildings in

¹² <https://ukgbc.org/our-work/topics/advancing-net-zero/embodied-carbon/>

the GET 2.1 Approach, where it recognises the importance of the construction process and the adoption of low-carbon materials.

63. In summary, based on this cluster evaluation, IEvD's findings highlight that current KPIs and incentives are not congruent with the Bank's strategic objectives of maximising environmental outcomes in decarbonisation of the built environment projects. There is no formal mechanism distinguishing between absolute or relative emission savings, whilst the current approach to GET leaves little room for projects to exceed a relatively low baseline. Consequently, it is difficult to distinguish between truly impactful projects and run-of-the-mill projects, and teams' efforts to go for the former rather than the latter are not recognised by the incentive system. Given the scale of the challenges in the sector and the need for increasing the speed of decarbonisation, which is currently very low, there is a significant space for improving the Bank's operational model.

3.4. Limited capacity to course-correct based on monitoring data

64. Without accurate and ongoing monitoring, the Bank's capacity to step-in and 'course-correct' in case anything has gone wrong is greatly restricted. Accurate and ongoing monitoring enables the EBRD to assess projects' progress and provide the platform to determine whether a project is being implemented as intended.

65. The Bank's approach to monitoring the direct environmental outcomes of decarbonisation of the built environment projects provides a limited foundation for course-correction. Monitoring frameworks do not have a robust mechanism to validate the assumptions within environmental forecasts, in some cases only collect key data at project end and have limited verification systems. Consequently, it is difficult to see how the EBRD could reliably use monitoring data on decarbonisation of the built environment projects to identify where something is going wrong or where environmental outcomes are likely to be significantly lower or higher than expected.

66. IEvD notes that the Bank introduced a Green MRV system in 2022 for credible and consistent monitoring of GET investments across the Bank's investments. The Green MRV system includes a Green Project Monitoring Plan (GPMP). However, given its recent introduction, only one project within the evaluation sample was part of the Green MRV and has a GPMP. Given that project was only signed the same year as the MRV was introduced and is still being implemented, there is limited monitoring data. IEvD would stress that there are important lessons from the current portfolio on developing GPMPs for future projects.

67. To track whether environmental outcomes are in line with the Bank's ex-ante forecasts, monitoring frameworks should reflect the key variables within environmental models. Taking this approach is a pre-requisite for a clear comparison of ex-ante projections and ex-post results.

68. However, this approach was only applied sporadically across the cluster projects covered under this evaluation. Most projects (nine out of 11) instead relied upon an indicator related to CO₂ savings, without intermediary indicators tracking operational outcomes that reflect key model variables. This provides an incomplete picture of performance. Addressing this is a low-hanging opportunity for the Bank as operational data in this area is normally straightforward to collect.

69. In addition, project monitoring frameworks often specified that environmental data (e.g. CO₂ savings) should only be captured once the project completed. For example, the Transition Impact Monitoring System (TIMS) report for one project states that: **"The progress of the green component will only be assessed at the end of the investment period."** In effect, given that most projects also did not have intermediary operational outcome indicators, this meant that using

formal monitoring systems, the EBRD has little insight into how these cluster sample projects have contributed towards its expected environmental objectives over the course of implementation.

70. Where monitoring data is submitted, there appears to be limited verification checks on how results has been calculated and whether key assumptions have been kept constant. This leads to inconsistent data being recorded for key variables. The two projects demonstrate this issue. Between the two *ex-ante* forecasts and the two sets of reported results, four different assumptions on the CO₂ emission factor were used. This means that there is very little comparability between targets and results.

Table 4: Inconsistent use of CO₂ emissions factor

| Project | CO ₂ emission factor used in <i>ex-ante</i> forecasting (tonnes/GW) | CO ₂ emission factor used in results reporting |
|----------------|--|---|
| First project | 233 | 221 |
| Second project | 100 | 310 |

Source: Project approval documents, project reports, IEvD compilation.

71. There is also a problem with different reporting formats in which green results are currently being (imperfectly) captured. Some projects have this information in the regular TIMS reports or operational reports, while others have it in Annual Environmental and Social Reporting (AESR). A standardised format is the easiest change to make to ensure the green results capture more accurate and accessible information for all stakeholders who are involved in project's implementation.

72. Overall, the modelling and calculation of environmental outcomes in projects in the evaluation sample was fundamentally flawed. Poor reliability or robustness of data has downstream consequences, including on the Bank's capacity to invest in the most impactful projects and to accurately monitor results (see Section 3.2). While conducting this analysis, IEvD relied on the GET Operational Handbook (including previous versions applicable when these projects were approved), GET and GHG calculations provided by CSD. IEvD recognises that efforts have been made in 2023-2024 to enhance the quality of modelling and calculations.

73. EBRD's reporting on ex-ante modelling forecasts creates a potential risk for the bank. In addition to being a key input for several internal processes, the environmental outcomes described by the EBRD in external reports, documents and communications almost without exception rely upon ex-ante modelling forecasts. Beyond the internal processes described above, and while recognising the industry-wide nature of the challenge, inconsistent and inaccurate forecasts at best give the impression that the EBRD is haphazard. At worst, they raise the perceived risk of over-reporting.

4. Solid project implementation, but limited contribution to wider systemic impact

4.1. Feel the difference: Actual green results versus anticipated results

74. In this section, IEvD examines the direct environmental outcomes from decarbonisation projects supported by EBRD. It only includes results aligned with the Green TQs and does not cover outcomes related to other project components in inclusion or well-governed TQs. It also excludes wider market effects, including those related to green buildings; the focus is narrowly confined to direct environmental benefits resulting from physical construction/renovation.

75. One of the primary difficulties encountered in this assessment stems from the poorly constructed targets that were initially set for these projects, as detailed in Section 3. Whilst projects do have benchmarks, the reasoning behind these benchmarks is often flawed and incomplete. Therefore, this offers an inadequate yardstick to assess what constitutes a successful result.

76. This exercise is further complicated by data gaps. At the outset, monitoring frameworks did not always specify the data requirements necessary to enable project evaluation. This means it was not always straightforward for IEvD to build a complete data picture across project components partially financed with EBRD funding.

77. Where there is data available, it is often based on revised estimates rather than actual energy usage. For example, the EDGE certification process provides an independent third-party estimate of building energy usage, rather than actual usage. Inherent within EDGE certification data are assumptions about behavioural use, which are not always accurate.

78. Acknowledging these limitations, which are also raised in other evaluation reports,¹³ IEvD has tried to provide revised estimates of CO₂ reduction achieved by these projects wherever feasible. These revised estimates have been carefully compared with the ex-ante targets, although the extent to which this provides value is dependent upon the robustness of the target and varies on a project-by-project basis. Revised estimates have been developed in coordination with technical experts and triangulated with their observations during site visits.

79. Across the cluster sample of 11 projects, IEvD was able to prepare revised estimates for CO₂ savings for six projects. Four projects were still in implementation without actual performance data, whilst IEvD was not able to identify a satisfactory methodology to compare ex-ante targets with ex-post results for one project.

80. Where revised estimates exist, there is no clear pattern as to whether these underperform or overperform against targets on a project-by-project basis. Three projects delivered higher CO₂ savings than expected and three projects delivered lower. However, CO₂ savings were much lower than anticipated on an aggregate level. Across the six projects, IEvD's revised estimate suggests

¹³ Evaluability Assessment of the EBRD's Green Economy Transition (SS22-174), 2023

that these projects led to CO₂ savings of 15,429 tonnes, against the original estimate of 28,643 tonnes – a 46% difference.

81. It is also worth differentiating where projects underperformed with respect to delivery and projects where CO₂ savings were based on assumptions. Across six projects, two were delivered largely in line with expectations, but energy savings were lower than anticipated. One project delivered energy savings close to what the EBRD had targeted, but changes in the carbon intensity of emissions led to lower CO₂ than anticipated. However, in this case the initial assumption was robust given that it was based on then-applicable guidance from the Government. For another project, the divergence from the target was primarily based on the reduced scope of work rather than completed works underdelivering on energy savings. Two other projects were implemented as planned and overperformed with respect to energy savings.

4.2. Performance gaps: Private versus public sector

82. Assessing trends in performance is complicated by the poor development of targets. This means that in some cases with respect to final environmental outcomes, it is difficult to assess what successful performance looks like and how that correlates with project characteristics. Also, according to Bank experts, it uses different approaches to calculating ex-ante outcomes for newly built and retrofitted buildings, as well as for private and public buildings.

83. However, there are some broad takeaways in terms of implementation, particularly between public and private projects. Private sector projects tended to be delivered on time, with operational outputs as expected. Having their own funds, such clients were able to weather some cost increases without significant delays. All private sector clients had significant in-house technical expertise in the decarbonisation of the built environment. Each also regarded their approach as a practice which helped distinguish them from market competitors and which often exceeded the EBRD's minimum requirements for green buildings.

84. In comparison, the public sector projects were more likely to face implementation delays and cost-overruns. In two cases (Moldova, Bosnia and Herzegovina) the Covid-19 pandemic and security crisis caused by war on Ukraine triggered trade disruptions and an energy price crisis, playing a major role in the increased cost of works. Additionally, political economy factors delay approvals of essential regulatory and project-related documents. As a result, the scope of work financed by the EBRD was in some cases smaller than anticipated, leading to lower-than-expected environmental benefits. A particularly clear example was provided in one of the countries, where the evaluation looked at both private and public sector projects and noted a significant gap in performance.

85. Except for client in Lithuania, the technical capacity of public sector clients, both with respect to green buildings expertise and overall implementation, was also lower. Public sector clients interviewed by IEVD had less awareness of industry standards, such as different green building certification schemes. They also highlighted the challenges they had faced in procurement and implementation – both focus areas for EBRD-provided and donor-supported technical assistance projects.

4.3. Geographic disparities are smaller

86. The evaluation team observed limited differences in the performance of projects depending on the geographic location of the client. This suggests that sector split is more significant than geographical variations in the cluster of five countries.

87. One area where IEvD did observe a geographical disparity was comparing public sector projects across countries. Lithuania's client outperformed the Canton of Sarajevo and Municipality of Chisinau in the design and implementation of projects financed by EBRD. There are significant contributing factors; Lithuania is an EU member, and client is a national arms-length agency focused on renovation. In contrast, the canton and municipality must implement a wide range of priorities and face tougher challenges related to their ability to take independent decisions, particularly in the financial domain, whilst also balancing political considerations.

88. During the design stage, this evaluation selected certain geographies, based on the presence of mature projects that aim to decarbonise the built environment. Central Asia was not included due to a limited number of projects. There are no insights from the southern and eastern Mediterranean (SEMED) region. The project initially selected in this region was dropped as no site verification was possible.

4.4. Beyond green: Secondary transition qualities

89. Several results were achieved by cluster projects in other transition domains, specifically inclusive and well-governed.

90. Several projects had inclusion actions that led to some changes at the company level. In one example, the client invested in the design and delivery of a training programme for young people to support their progression to mid-level management in the company. This appeared to be operational and helping address a gap in education provision in the country where the project took place. Through a partnership with the respective ministry, the company is launching a virtual programme for students from all over the country, including remote regions, which will provide them with the opportunities to connect with the labour market.

91. Another client launched new human resource (HR) policies related to greater inclusivity of their workforce, including supporting the employment of staff with disabilities. However, implementation has been delayed by the Covid-19 pandemic. Another client, worked with a local consultant to design and deliver training programmes on health and safety and risk management. These are now accredited by local authorities and have the potential to be scaled up through national educational institutions. Across all these projects, there is no evidence of wider market effects, though it is also too early to observe such changes.

92. For private sector clients, the EBRD's advice in climate corporate governance is gaining more importance. One client provided a clear example of how improving corporate standards and taking on different voluntary reporting standards in ESG can strengthen competitiveness. This supported their ambition of becoming a public company. Combined with the company's goal to have all their properties certified at the highest possible level (LEED Gold or Platinum), it also enabled easier access to more affordable financing and higher profitability. Other clients were supported by EBRD in advancing their climate corporate governance standards, including the preparation and implementation of a climate action plan, the setup of climate risk management processes and GHG emission reporting aligned with the Task Force on Climate-Related Financial

Disclosure (TCFD) principles. Given the approaching deadlines for the EU financial sector to comply with the Green Taxonomy, EBRD clients covered by this cluster evaluation will be in a good position to report transparently on their green actions and results and to obtain financing according to the new rules.

93. Two municipal projects in Chisinau and Sarajevo are part of the EBRD's Green Cities Programme (GrCP) and accordingly, have facility-level transition objectives. The most significant commitment is preparation, approval and implementation of the GCAP that leads to positive environmental change. The technical support and expertise provided is of a strategic nature for the entire scope of municipal environmental challenges and does not necessarily include policy and regulatory changes in decarbonisation of the built environment. Both the city of Chisinau and the canton of Sarajevo have approved GCAPs that are being implemented. Evaluation evidence demonstrates that municipal stakeholders highly value EBRD's support with the development of GCAP and use the document as a strategic guidance for implementing key municipal infrastructure projects. They also recognise the importance of horizontal activities related to knowledge exchange and learning from the experiences of other cities.

4.5. Unintended results: Contributing to positive behaviour changes and increased quality of life

94. Behaviour change and improving quality of life for users is rarely captured in formal reporting, but there are clear outcomes in this area.¹⁴ The green transition and decarbonisation of buildings in large part depends on how those using these buildings change their behaviour – those in private households, public institutions and businesses. Cluster projects offered insights into behaviour change of all three groups of stakeholders and how such changes stem from improving quality of life outcomes. The evaluation team qualifies them as unintended results.

95. EBRD projects with public sector clients demonstrate quality of life benefits and how these influence the understanding and appreciation of decarbonisation projects, as well as potential demonstration effects. In the case of schools or nurseries in Moldova and Bosnia and Herzegovina, the buildings that took part in projects financed by the EBRD attracted attention from non-participating institutions. Beneficiaries, such as headteachers and similar leaders who benefited from the projects and saw significantly reduced utility bills, became champions for new decarbonisation solutions. They help confront existing traditions and mindsets in terms of managing buildings effectively and efficiently and supporting a growing understanding of the cost-benefit analysis of decarbonisation solutions among public sector officials and users.

96. Similarly, projects that invest in the modernisation of residential apartments through homeowner associations and similar umbrella platforms lead to significant changes in attitudes and behaviour. Post-socialist countries with historical “free” ownership of the apartments in multi-apartment buildings (MAB) often face challenges of lack of ownership and initiative to modernise MABs to ensure efficient use of energy and resources. Upfront costs are perceived as an insurmountable handicap, although these can be reduced with rational financing schemes that can allow apartment owners to gradually cover the costs of modernisation. Demonstration effects from successful projects – when residents observe a substantial decrease in the cost of energy, heating and water – helps build the positive brand of modernisation projects, especially amidst

¹⁴ There is an increasing interest in the use of behaviour science in designing development interventions and green investment projects. For an example, see GCF's Evidence Review of the Behaviour Science, at <https://ieugreenclimate.fund/evidence-review/behavioural-science>

surging energy prices. This process does require targeted communication and outreach activities, which one client demonstrated quite convincingly.

4.6. Modest wider systemic impact in cluster countries overall

97. Policy engagement in the decarbonisation of the built environment is a key instrument for supporting contributions towards systemic effects that are needed to address the climate emergency. It is especially impactful when delivered by institutions with significant investment portfolios, like the EBRD. The IEvD team applied a snowballing approach to evaluating policy dialogue and TC¹⁵ in five cluster countries. It confirmed that activities are directly contributing to changes in legal and regulatory regime in two countries (Securitisation and Covered Bonds work co-funded by Shareholder Special Fund (SSF) in Lithuania and Western Balkans Regional Energy Efficiency Programme funded by the EU in Bosnia and Herzegovina) and indirectly contributing in another one (Capital Market Development Strategy in Greece). It should be noted that outside these five cluster countries, the EBRD has a growing number of policy engagements and regulatory TCs in the area of the decarbonisation of the built environment and creating low-carbon pathways for construction materials, such as steel, cement and aluminium (i.e. in Egypt and Türkiye). Evidence from the cluster projects suggests there is limited scope for a wider systemic impact, with the caveat that demonstration effects are hard to observe in this timeframe and using a cluster (as compared to a country or sector) approach.

98. Only one project has policy dialogue associated with it (transactional) and this is in the development of capital markets, rather than the decarbonisation of the built environment. In Lithuania, the EBRD facilitated the development of a new legal regime for securitisation and covered bonds aimed at diversifying financial resources for decarbonisation. There were some important institutional changes at the time of the evaluation that should make this regime operational in the near future. Two other examples of policy engagement with the national governments on energy efficiency (Bosnia and Herzegovina) and green commitments in capital markets reform (Greece) resulted in changed strategic frameworks. The results have yet to be reflected in investment projects.

99. Evidence from the cluster evaluation on EBRD's engagement with governments to embrace systemic change and enhance their regulatory frameworks on green and sustainable buildings is limited. Investments had associated TC projects funded by the bank, donors or by the client, but those were mostly focused on skills and value chain management. However, a brief analysis of the most recent generation of country policy compacts, launched by the EBRD as a practical tool supporting implementation of five-year country strategies, indicate limited references to buildings. However, it did indicate a growing appetite for broad policy engagement in the area of decarbonisation in general and the decarbonisation of the built environment specifically (see Table 5 and Box 3).

Table 5: References to decarbonisation in country policy compacts

| |
|---|
| Bosnia and Herzegovina, November 2023 |
| Opportunities for future engagement: Support for improving legislation to unlock energy efficiency lending to multi-apartment buildings |
| Moldova, December 2023 |
| No reference to buildings, but there are two relevant policy objectives: (i) energy efficiency policies and (ii) build city capacity on gender and climate topics and raise awareness on energy efficiency and green consumption behaviours |
| Greece, December 2023 |

¹⁵ A gradual gathering of evidence during implementation stage, as there was very little evidence at the time of design.

| |
|---|
| Nothing on buildings, but priority to support sustainable energy and infrastructure, including increased resource efficiency and climate resilience |
| Lithuania, December 2023 |
| Nothing on buildings, but priority to proceed with market feasibility study on green and sustainability-linked bonds for municipalities |
| Romania, January 2024 |
| Nothing on buildings, but priority in sustainable municipal infrastructure |

Box 3: Tracking policy development in decarbonisation in our CoOs

Countries included in the cluster are at different stages of their decarbonisation journey. A brief review identified a range of gaps between countries' targets to achieve net-zero in the building and construction sector vis-a-vis the current situation.

EU member states are most advanced, but even they have significant differences. Lithuania has the most developed framework for the decarbonisation of buildings, integrating EU regulations, principles of circular economy and prioritising local industries with capacity to produce materials with lower levels of embedded carbon. The EBRD's client has a strong reputation with which it can harness significant financing for efficient and effective renovation of MBAs. In both internal and external interviews, the project was noted as a model to emulate. It is important to note that the client's capacity and capacity of associated institutions has greatly benefited from EU programmes and structural funds and the EBRD's impact should be evaluated in this context. Greece and Romania have strong legal and regulatory commitments, however their capabilities to implement and enforce those were limited at the time of evaluation.

Moldova and Bosnia and Herzegovina both have some national legal framework and commitments, however the implementation, enforcement and data are poor quality. **Chisinau's and Sarajevo's participation in Green Cities Programme has a positive effect on their ability to push for a greater green transition.** There is evidence of local ownership of GCAP and a greater understanding of integrating green dimensions into planning and implementing urban infrastructure and managing existing building stock. It was too early to assess the effects of the entire GCAP in each city. However, results from specific actions, including through two cluster projects, offer some cautious reasons for optimism.

All clients noted significant shortages of adequate suppliers of construction materials and works, as well as facility management services and supervisory engineers that comply with net-zero standards. But there are gradual improvements. In all cases, the private sector client is a beacon of the required standards in energy efficiency, resource efficiency, carbon footprint reduction and overall value chain managements towards greater climate resilience. For example, one client has a "book of green materials" where they catalogue all eligible materials that can be sourced through their contractors. They noted the desire of local suppliers to comply with the higher standards to win contracts. Another client noted the gradual shift from international contractors to local construction contractors, who learned a great deal from the subcontracting experience. However, some countries, like Moldova and Bosnia and Herzegovina, are facing systemic labour market challenges due to the outflow of skilled construction workers to other countries.

5. Insights and recommendations

5.1. Key findings and insights

The cluster evaluation projects were broadly implemented successfully and project-level benefits were in line with the Bank's GET Approach. However, the environmental change the Bank contributed towards was not always systemic and ambitious.

100. Whilst some projects, particularly in the public sector, faced some delays and costs overruns, these projects were generally implemented in line with what the Bank had anticipated in the design phase. There was more variance in the environmental benefits (vis-à-vis anticipated), however, this was primarily due to flawed ex-ante assumptions, rather than issues in implementation. Green building experts contracted by IEVD confirmed during site visits that buildings were generally developed to good environmental standards, providing additional reassurance where external certification schemes like EDGE had not yet been implemented.

Evidence from the cluster evaluation illustrates the strong relevance of the decarbonisation of the built environment within the EBRD's strategic priorities.

101. Throughout different iterations of key strategic documents, the Bank has recognised the importance of the decarbonisation of the built environment. The projects demonstrated strong relevance with these priorities, as well as relevance with the objectives of other stakeholders.

Relevance of EBRD's investment activities to clients' demands is strong.

102. Across private and public sector clients, cutting down operational costs is a common and significant motivator. Complying with the ever-increasing scrutiny of GHG emissions and energy/resource use, green governance and reporting is common for clients in EU countries, and this is being addressed through the implementation of EBRD projects.

103. For Moldova, the biggest current motivator is reducing energy usage. With a three-fold increase in gas prices in 2022 alone, the buildings that went through deep renovation under the Chisinau buildings project incur noticeably lower utility bills. This is a strong driver for scaling up renovations and saving budget funds and reducing a dependence on Russian gas – a crucial part of the country's energy security strategy.

104. For other countries, the cost of energy and fuel is also critical. Equally, compliance with national and international regulatory regimes is significant. EU countries are facing a steep learning curve in terms of implementing EU net-zero commitments and Green Deal reporting standards. EBRD-financed projects provide substantial support in advancing clients on the path of compliance with EU legislation and standards, including corporate climate governance. The degree of internal capacity and alternative tools that clients have available for achieving these goals varies.

105. Finally, significantly enhancing the quality of life for users of buildings is a great motivator, although one that is challenging to capture and to reflect in the results matrices. These positive

changes remain an unintended effect of EBRD's decarbonisation investments. For clients, they can often be a key underlying reason for seeking the Bank's financing.

Coherence within the Bank's approach is less clear, with a strong emphasis on policy dialogue only translated into practice in some cluster countries.

106. The Bank's strategic approach towards decarbonisation suggests an approach which combines investments with policy dialogue. Across the cluster projects, IEvD observed limited policy dialogue contributing to the decarbonisation of the built environment directly (through energy efficiency measures) or indirectly (through capital market instruments enabling greater volume of climate financing). To deliver faster and more impactful decarbonisation actions, greater efforts and resources are required for systemic policy engagement and capacity building. This includes greater internal co-ordination and external coordination with other MDBs and international partners.

For public sector clients, the Bank has strong non-financial additionality by offering technical expertise, know-how and financing of supervisory assistance. For private sector clients, these benefits are more marginal.

107. Both public and private clients have commended the support and advice they receive from the Bank's teams, usually pushing them above and beyond the required regulatory standards. However, clients start from different baselines and the level of advancement is relative. Private sector clients have substantial in-house expertise and have resources to reach out to external sources of know-how. Public sector clients have more limited capacity, implying higher non-financial additionality of the Bank. At design, standards were usually appropriate and realistic for the market and the client. But in some cases, they lacked the ambition warranted by the climate emergency to decarbonise buildings. Demonstration effects from supporting standards at the time of evaluation were limited in many cases, although the short period under review and the time it can take for wider market effects to permeate must be noted.

Political economy factors substantially affect the speed of decarbonisation.

108. In public sector operations, the distribution of funds and selection of buildings to be included in the project often depends on various political economy factors. These include the electoral cycle, the composition of the municipality/region and the need to divide resources equally among groups with varied political allegiances. All these factors lengthen the approval and implementation process. In some cases, the municipality/region took a deliberate decision to cover a greater number of buildings to increase the comfort of a greater number of users (school and nursery school pupils and teachers, hospital patients and staff), but limit the scope of work on each building. Sometimes the omitted works undermined the overall robustness of the building envelope (e.g. a basement or roof zone is not modernised) and efficient use of energy/water (e.g. leaking pipes of outdated heating installations that were not upgraded). As a result, completed buildings, even when delivering significantly improved levels of comfort and reduced use of resources, failed to comply with the overall standard that could be achieved if a full set of deep renovation works was performed. Therefore, this negatively affects the speed of transition to a decarbonised built environment.

With current processes in place, it is difficult to see how environmental modelling and monitoring create a robust foundation for maximising the effectiveness of EBRD projects in the decarbonisation of the built environment.

109. Inaccurate models and inconsistencies between modelling imply that environmental forecasts are of little value in determining the most beneficial projects to support.¹⁶ This observation was confirmed by engagement with Bank's management who stated that environmental outcomes, such as the effect on GHG emissions, is not a factor within the investment decision-making process. Furthermore, a combination of inaccurate models and the current application of the GET and ETI methodologies means Banking teams have limited incentive to deliver projects above a low threshold.

IEvD's assessment of the cluster projects shows that reports on decarbonisation of built environment projects are unlikely to provide the robust data necessary for evidence-driven learning.

110. This point can also be demonstrated by a trend which appears to suggest that more investment leads to less CO₂ savings. Given that the data implies this illogical conclusion, it is difficult to see how the same data could be used for other lesson-learning.

The current approach to ETI and GET does not provide enough differentiation in how the Bank approaches investments in green buildings.

111. The ETI and GET systems provide limited mechanisms for identifying and rewarding more impactful green building projects. Whilst the ETI system does have an uplift for innovative standards, the system does not distinguish between greenfield and brownfield construction, nor between different standards that do not meet the threshold for being innovative (e.g. EDGE versus EDGE Advanced). The GET system previously provided some scope for differentiation with respect to how it was implemented in coordination with the EDGE certification tool, but changes to the GET system (partly to ensure alignment with international partners) means it no longer distinguishes between 'good' EDGE projects versus 'best in class'.

Insights on the ground demonstrate that without investing more efforts and resources in the behaviour changes essential for the efficient management of greener buildings, achieving net-zero by 2050 is unattainable.

112. Strengthening widespread understanding of how urgently decarbonisation needs to be implemented along the entire supply chain is essential. This includes many participants, including those from the construction industry, to supervisory engineers, to building users, to demolition teams and others. While property developers are focusing on educating their buyers/renters on green building maintenance, there is little demand from the market as only few companies are committed to decreasing their corporate CO₂ footprint and energy efficiency targets. The construction industry is catching up with the standards and requirements of various certification levels through engagement with the EBRD clients. However, market effects are less

¹⁶ Based on direct environmental benefits from EBRD's use of proceeds.

visible, even in the EU countries where regulatory regimes are getting stricter. The power of oversight, enforcement and reporting is relatively weak and requires enhancement.

EBRD needs to maintain a progressive trend in upscaling its methodology and toolkit to respond to the ever-changing reality and standards.

113. As the Bank starts the preparation of its new GET strategy and the Strategic and Capital Framework (SCF) for 2026-2030, it has to absorb the emerging trends and most pressing needs. These trends include (i) active international standard setting initiatives pushing for higher standards in national regulations; (ii) greater transparency and accountability of green results, along with green financing; (iii) global push for greater circularity and reduction of absolute rather than relative GHG emissions through incorporation of embedded carbon in the value chain; (iv) incorporation of green skills/green jobs in the stream of work on decarbonisation of buildings to the extent possible, also through mobilising donor resources to cover additional costs. This is especially applicable in less advanced countries.

5.2. Recommendations

114. Table below provides connection between findings and recommendations.

| # | Finding | Recommendation |
|---|---|---|
| 1 | <p>The Bank has strong non-financial additionality through offering technical expertise, know-how and financing of supervisory assistance for public sector clients. For private sector clients, these benefits are more marginal.</p> <p>Private sector clients have significant internal expertise in green buildings, which is typically a strategic focus of those in the cluster projects. The EBRD's standards rarely exceed the client's pre-existing approach and the technical support that the EBRD can offer. This means that when clients can attract other investment sources, it is not clear what value-added the EBRD brings.</p> | <p>Strategic Recommendation 1:</p> <p>To respond to the climate emergency and to speed up the decarbonisation of the built environment, the EBRD should use a more refined approach to encourage clients to achieve a faster and bigger transition impact (TI) and to prioritise the most impactful projects. The current approach does not push clients enough to deliver green buildings at scale and/or improve their standards. The Bank should show how it adds value and contributes to wider market effects in delivering environmental outcomes that would not happen otherwise, especially for private sector clients who can get other funding sources.</p> |
| 2 | <p>The Bank's strategic approach towards decarbonisation combines investments with policy dialogue. Across the cluster projects, IEvD observed several instances of policy dialogue contributing to decarbonisation of the built environment directly (through energy efficiency measures) or indirectly (through capital</p> | <p>Strategic Recommendation 2:</p> <p>The EBRD should use its advantage as a green building investor to support the whole process of making the built environment low-carbon, including policy dialogue and capacity building. This area is critical to addressing the climate emergency and it is a</p> |

| # | Finding | Recommendation |
|---|---|--|
| | market instruments enabling greater volume of climate financing). However, to deliver faster and more impactful decarbonisation actions, greater efforts and resources are required for systemic policy engagement and capacity building, jointly with other MDBs and international partners. | significant part of the Bank's portfolio. Without employing more ambitious and more consistent policy dialogue, in collaboration with other key stakeholders, the Bank is often missing opportunities to leverage the impact of its investments and contribute towards systemic change. The Bank should use the existing Green Building Knowledge Hub in the Climate Strategy and Delivery (CSD) and technical experts in other departments, especially Sustainable Infrastructure Group (SIG), to create a champion to lead this topic and coordinate different teams to work on green building projects. |
| 3 | <p>Currently, the Bank's scoring mechanisms – GET ratio, CO₂ calculations or ETI methodology – have limited capacity to properly identify and reward more impactful projects.</p> <p>EBRD needs to maintain a progressive trend in upscaling its methodology and toolkit to respond to ever-changing international standards and best practice.</p> | <p>Operational Recommendation 3:</p> <p>Develop a more sophisticated method for ETI scoring that can differentiate between various national situations in the building and construction sector, as well as between the kind of investment project – greenfield or brownfield – and the degree of intended green building certification (from basic to advanced). This will address the current situation where neither GET nor ETI identifies and incentivises more impactful projects and it will help close potential missed impact opportunities. EBRD's capacity to refine GET methodology relies on changes to cross-Multilateral Development Bank (MDB) methodology.</p> |
| 4 | <p>Calculations of CO₂ reductions, which feed into investment decision-making, are unreliable and inconsistent between cluster projects. This raises the risk that the 'wrong' projects receive financing and reduces the capacity of the Bank to learn from its portfolio.</p> <p>Currently, CO₂ forecasts are not used as a basis for making decisions for prospective investments. This appears counter-intuitive given that CO₂ reduction is a key objective behind these investments. However, IEVD recognises with the current approach a lack of consistency and comparability hinders the use of CO₂ modelling in investment decision-making, as well as in</p> | <p>Operational Recommendation 4:</p> <p>Building on top of recent improvements in the quality of CO₂ modelling, implement changes to CO₂ forecasts so that it can help inform investment choices and improve learning from the Bank's investments. Possible changes to make carbon dioxide (CO₂) modelling data more consistent, comparable and transparent include using a pro-rata methodology that is scaled for EBRD's financing to provide a more accurate depiction of what environmental results the Bank's financing has led to; using a consistent approach for all projects to establish better comparability; making results frameworks match the models used in projects; and providing easier access</p> |

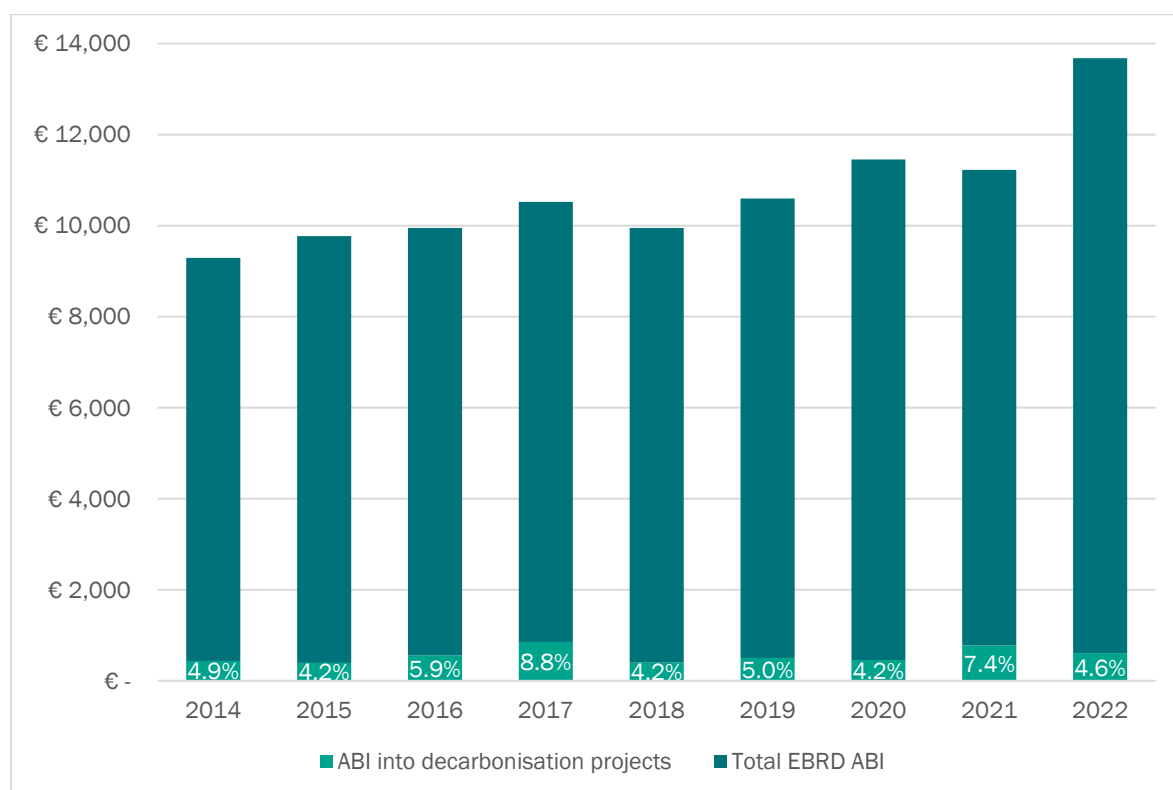
| # | Finding | Recommendation |
|---|--|---|
| | subsequent learning to identify where the Bank has been most impactful. Transparency and accountability principles declared in GET 2.1 require improved operationalisation to mitigate the perceived risk of over-reporting. | through EBRD systems to Green Questionnaires or showing the reasoning behind CO ₂ figures as part of the Board approval process. |

ANNEXES

Annex 1. Portfolio analysis

For this analysis IEvD has used a portfolio of 163 qualified projects supporting decarbonisation of the built environment in the period 2014-2022 using internal GET project database. It represents a small but significant area of investment for the EBRD, with annual bank investment (ABI) of at least €350 million of signed projects each year, ranging from 4.2 per cent to 8.8 per cent of total Bank investment (Figure 2).

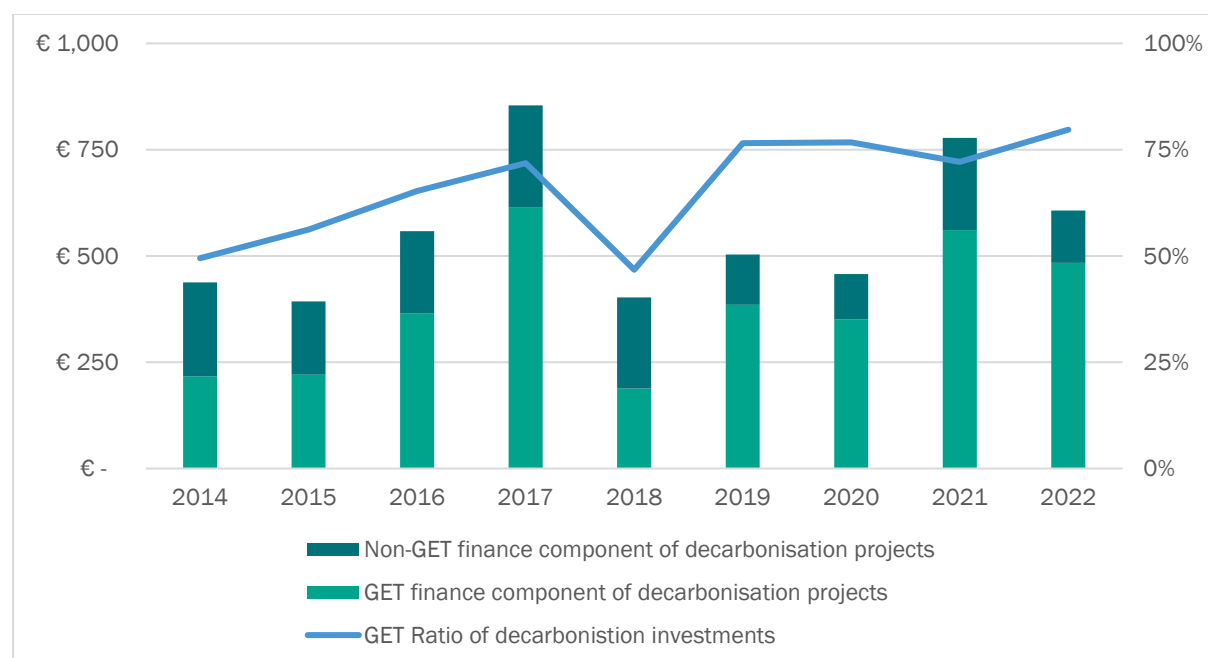
Figure 2: EBRD investments in projects with decarbonisation components, compared to total Annual Business Investment (ABI), 2014-2022 (€ million)



Source: EBRD GET project database

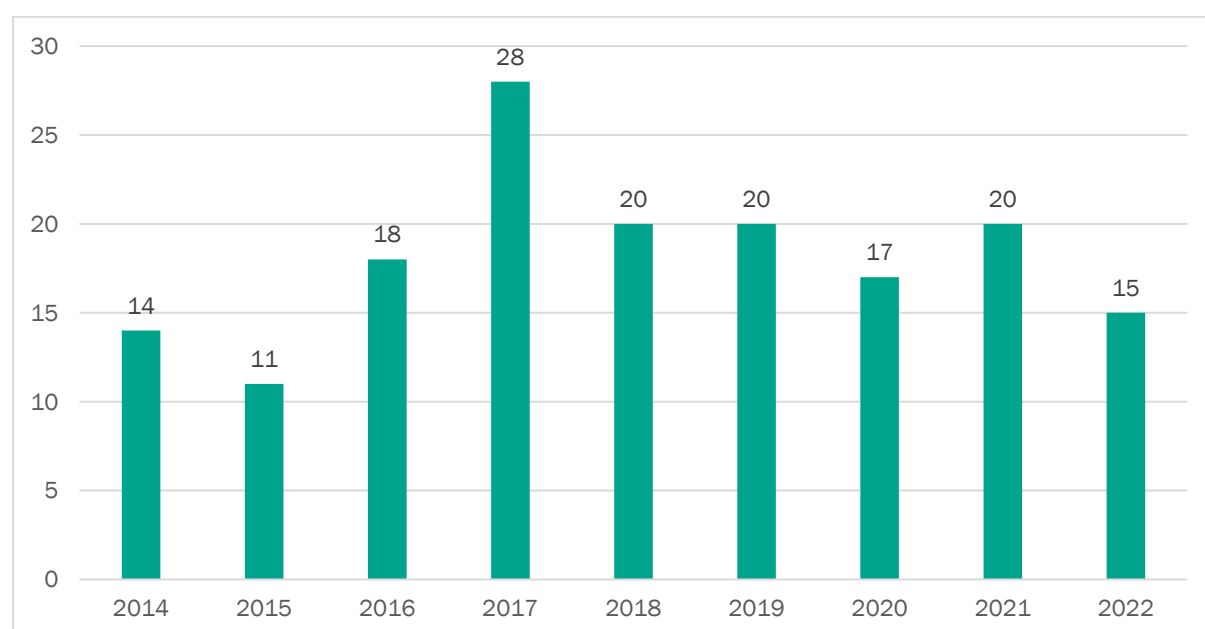
Every project in support of decarbonisation had at least a portion of project financed rated as GET-financing eligible. Across the portfolio of projects signed between 2014 and 2022, 68 per cent of financing on decarbonisation projects was categorised as GET-finance (Figure 3).¹⁷ Non-GET financing on decarbonisation projects was used for a range of other objectives, including to provide working capital and to help address other transition impact qualities, such as inclusive or well-governed.

¹⁷ EBRD launched methodology for defining GET financing share in 2016

Figure 3: Share of GET finance within decarbonisation projects, 2014-2022 (€ million and %)

Source: EBRD GET project database

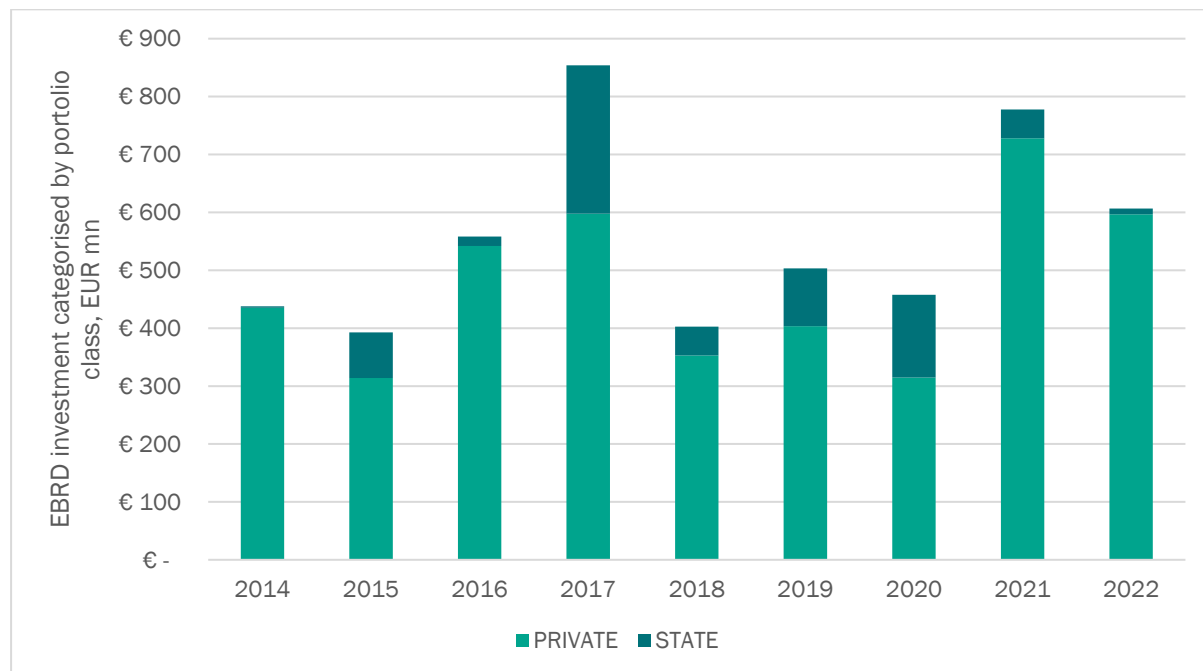
2017 was the year with the highest number of projects signed (28), and 2015 with the lowest (11), but overall, there has been no clear trend in the number of decarbonisation projects (Figure 3).

Figure 4: Number of Decarbonisation projects (2014-2022)

Source: EBRD GET project database

The portfolio primarily consists of projects classified as private rather than state. Across all projects signed between 2014 and 2022, 14 per cent of ABI was on state projects and 86 per cent on private (Figure 5).

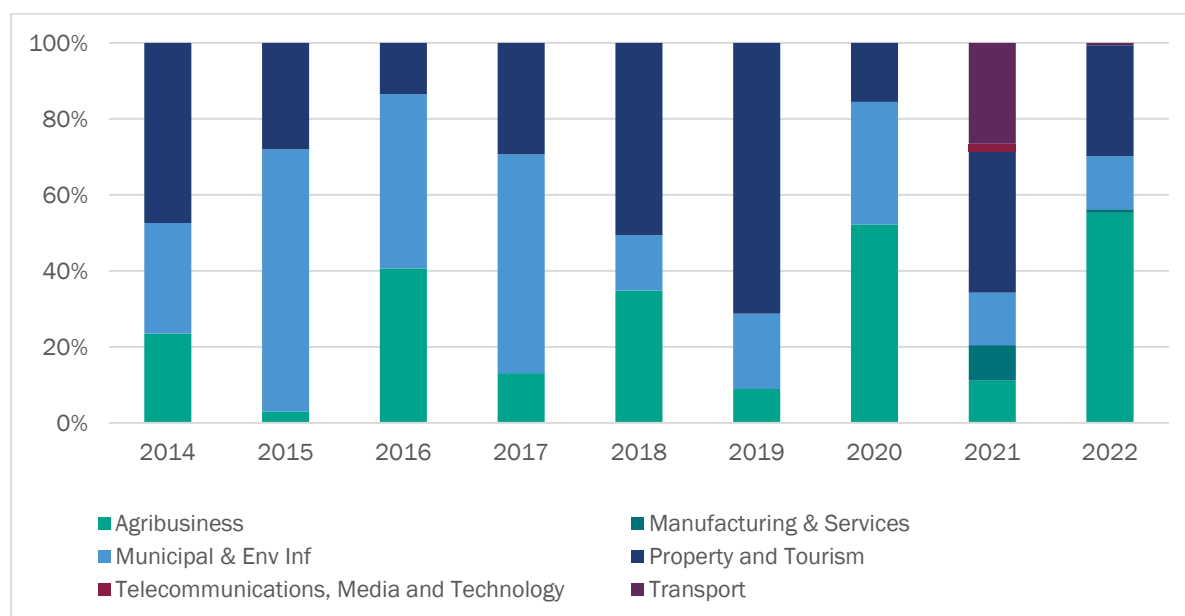
Figure 5: Private versus state sector GET finance ratio in decarbonisation of built environment projects, 2014-2022, € million



Source: EBRD GET project database

From the figure 6 below it is evident that MEI, Property & Tourism, and Agribusiness are the main sectors driving decarbonisation projects into the Bank's portfolio. More recently there are some signs of further diversification, with transport, and manufacturing and services projects signed in 2021 and 2022 as well.

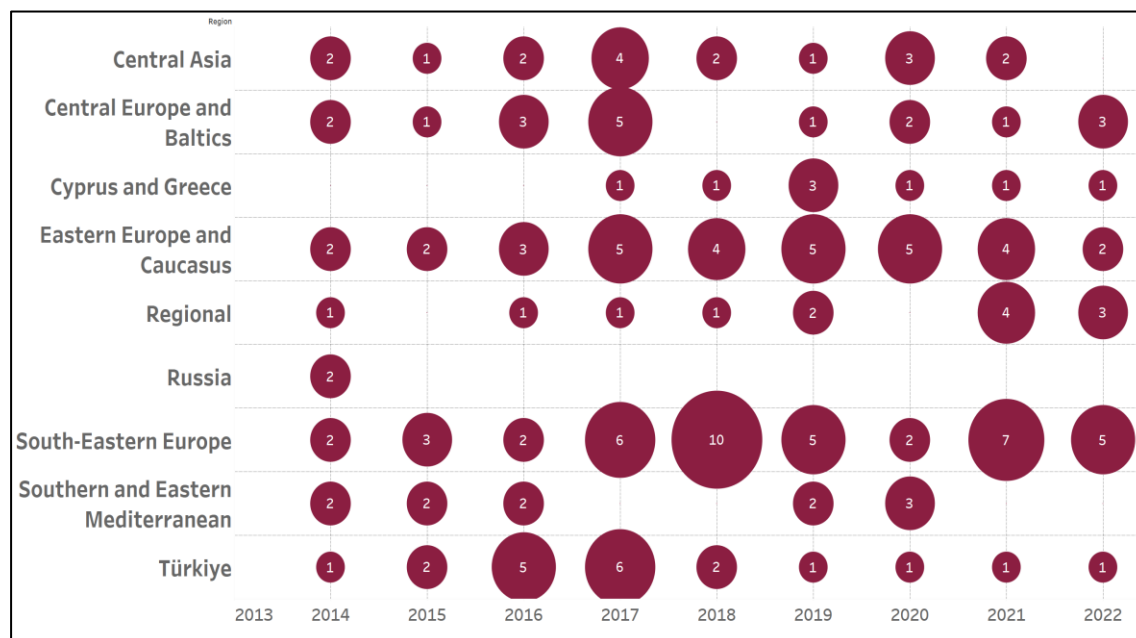
Figure 6: Breakdown of EBRD ABI into projects with a decarbonisation component across sectors



Source: EBRD GET project database

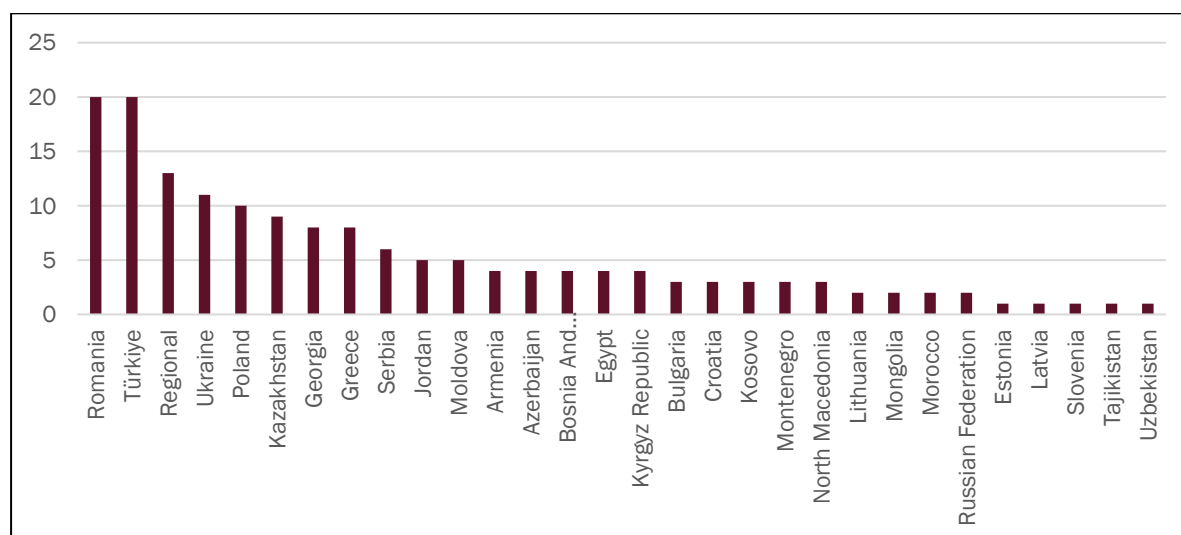
Projects investments in the decarbonisation of the built environment happened across all regions of Bank's operations (Figure 7). South-Eastern Europe (SEE) and Eastern Europe & Caucasus (EEC) are the main champions over the years analysed. Russia is showing as the region with the least decarbonisation projects, which is understandable taking into consideration that EBRD ceased all new investments in Russia in 2014 and took decision about complete exit in 2022. Cyprus and Greece come as the second smallest region with investments in decarbonisation projects during the analysed period, which is due to relatively short period of operations (both became countries of operation in 2015 and EBRD graduated from Cyprus in 2022).

Figure 7: Number of projects in decarbonisation of built environment per region, 2014-2022



A closer look at country distribution (Figure 8) shows Türkiye and Romania as the countries with the most projects, 21 and 20 respectively, while Estonia, Latvia, Slovenia, Tajikistan, and Uzbekistan are the countries with the least number of projects, only one in each.

Figure 8: Number of decarbonisation projects by country, 2014-2022



Source: EBRD GET project database

Mobilisation in sample projects

From the mobilisation perspective, the EBRD directly mobilised EUR 177.4mn of private sector funding on 5 evaluated projects, including on one public sector project. The primary mobilisation tool was Unfunded Risk Participation (URP). There were also significant levels of indirect mobilisation on the private sector projects. Public sector clients received grants and investment grants either from energy efficiency programmes or EU structural funds on-lent to the Government (Lithuania). In one project, thanks to the client's enhanced approach to blending finance from various sources and recent approval of the securitisation and covered bonds law, there is an expectation that the agency can attract private investment going forward.

Annex 2. Methodology of evaluation

Cluster evaluation approach requires a purposefully selected number of projects with the common attributes that allow in-depth analysis along key evaluation questions. Current evaluation focuses on investment projects where significant share of operational and transition objectives are in decarbonisation of the built environment and achieving higher standards of green buildings. Cluster projects have significant share of GET finance (for the entire qualified portfolio it is 68 per cent)¹⁸ and include a range of actions that contribute to enhanced decarbonisation governance standards in both corporate and public settings. A total of 12 projects in 6 countries have been identified.

The evaluation employed a mixed methods approach. The evaluation team performed a project-by-project evaluation using standard EvD methodology, including ratings along key evaluation criteria of relevance, effectiveness, efficiency, and impact. It includes desk-based analysis and site visits to all projects. Project evaluations based on available documents and reports was one of the key sources of evidence along with the internal strategic documents; external documents and databases; interviews with the EBRD staff; clients and external stakeholders. The EvD team was supported by external technical experts whose main task was to apply a range of techniques to independently verify reported results and impact with regard to reduced GHG emissions, use of electricity and other resources for each project; and contribution to the foundations of circular economy, when and if relevant.

The in-depth analysis was performed along identified evaluation questions and sub-questions that are defined in evaluation matrix (Annex 4). This was then synthesised along common themes, and broader findings applicable to the portfolio were formulated when possible. The evaluation report has recommendations applicable to the entire cluster unless specified otherwise.

The evaluation team applied two-staged approach to selecting a representative sample of projects, with detailed process and criteria presented in Figure 9:

1. Out of total pool of 163 projects identified in GET project database it selected a qualifying pool of 58 projects with relevant GET codes and mitigation categories covering three sectors – municipal and environmental infrastructure (green public buildings subsector), property and tourism, and agribusiness;
2. Through more rigorous analysis of approval documents and reports the team identified a sample of 12 projects with eight clients.

Qualifying pool of investment projects contains both public and private sector operations. All of them are direct lending, with GET code either (i) green buildings; (ii) industrial energy efficiency; or (iii) municipal infrastructure energy efficiency.¹⁹ All the projects are in one of three mitigation categories: (a) energy efficiency; (b) buildings, public installations and end-use energy efficiency; or (c) demand-side, greenfield energy efficiency. The pool excludes several significant sectors and investment streams that directly or indirectly contribute to decarbonisation of buildings, however, are of a very different nature from the point of view of design, structuring, operational and transition objectives. Specifically, these are (i) financial institutions (through GEFF instrument), (ii) equity and bonds (with one exception in P&T sector, where one client has both lending and equity operation), (iii) industrial building/ construction operations, (iv) non-financial aggregators, (v)

¹⁸ In 2022 alone total GET share in the buildings sector was 85 per cent

¹⁹ Green buildings GET code has been introduced in 2021 only and for projects approved in 2014-2020 the evaluation team used two previous GET codes: industrial energy efficiency and municipal infrastructure energy efficiency

PPPs (including hospitals). This approach is warranted for cluster evaluation that requires significant commonalities among projects to observe trends and to provide meaningful answers to the evaluation questions.

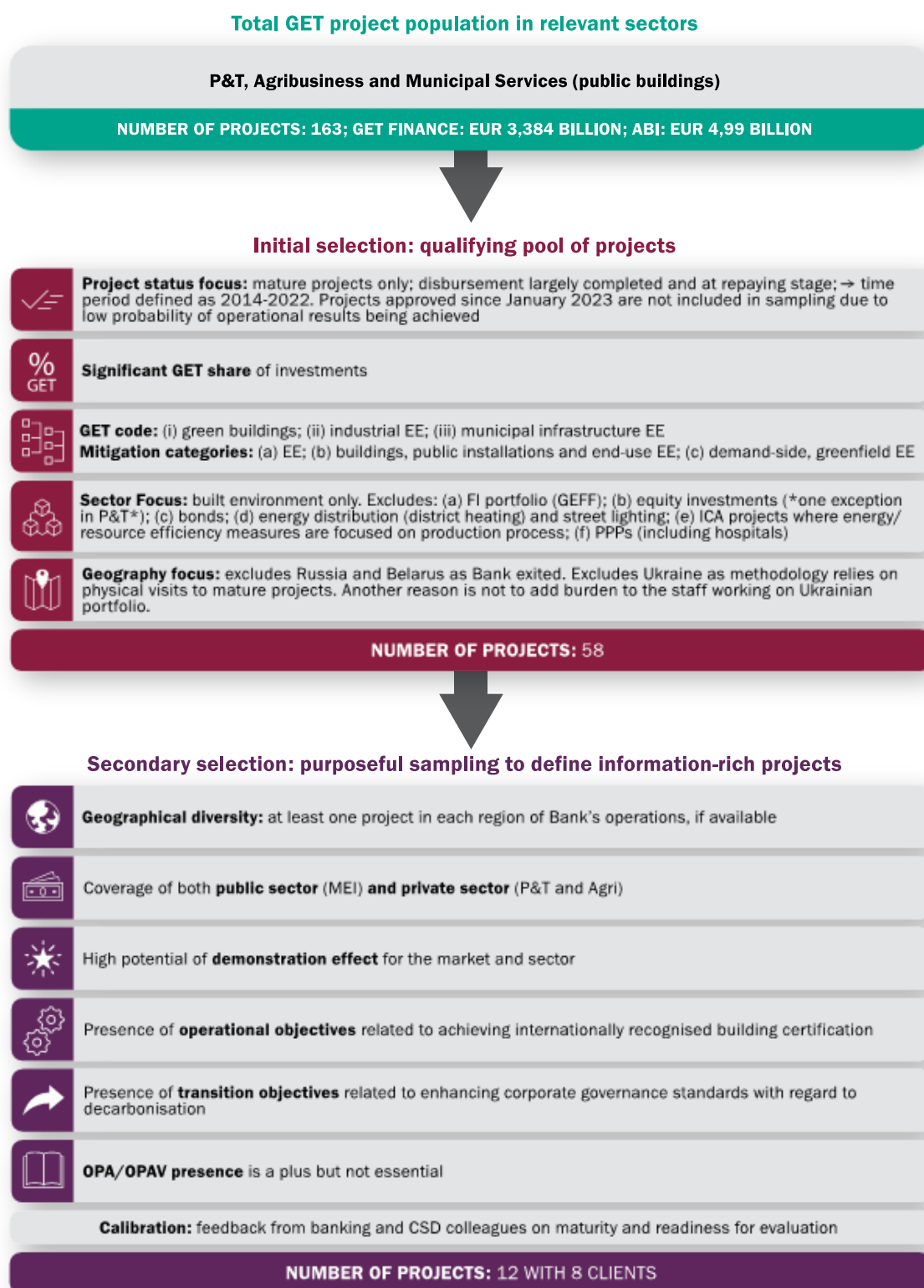
The evaluation team had extensive consultations with all three banking teams and portfolio colleagues who are leading on potential sample projects. Both HQ and RO colleagues (when relevant) were consulted. A range of concerns were discussed, including regarding the maturity of projects and the issues related to confidentiality of information as per contractual obligations with the private sector clients. The team also had discussions with CSD colleagues leading on green buildings. This calibration was helpful for the selection of final 12 projects.

Suggested cluster represents 11.36 per cent of total ABI of qualified pool of projects and offers balanced insights into all three sectors with 4 projects in municipal services, 5 in property and tourism, and 3 in agribusiness. Projects are in six countries representing all major regions of EBRD operations: Lithuania (CEE), Romania (SEE), Moldova (EEC), Greece, Bosnia and Herzegovina (WB), and Jordan (SEMED). Although Jordan project was dropped during the evaluation as its proceeds were not directly connected to decarbonisation of buildings and the team also had no opportunity to visit the site due to travel restrictions. Central Asia is not covered as there is insufficient number of qualifying mature projects that can be evaluated.

Most of project operational objectives focus on constructing new or retrofitting existing buildings with reduced carbon footprint and enhanced energy and resource efficiency. Also, projects include activities related to introducing best international standards and practices, sustaining them, and enhancing corporate governance standards in the area of decarbonisation (for private and public companies). Two projects are funded through Green Cities Framework, specifically Sarajevo Public Buildings and Chisinau Buildings, and will offer insights into TC, non-TC and policy dialogue activities aimed at strengthening legal, regulatory and strategic frameworks at national and municipal level in the area of decarbonisation of the built environment.²⁰ In general the evaluation team will apply a snowballing approach to evaluating policy dialogue, starting with the transactional elements of 12 cluster projects and adding relevant non-transactional policy dialogue activities after consultations with various internal and external stakeholders. This approach allows flexibility and addresses the challenge of paucity of data and reporting on policy dialogue as was noted in several previous evaluations (i.e. EBRD Policy Work in SEMED).

²⁰ The evaluation team will be consulting as much as possible the evaluative evidence and findings from the recently completed Interim Evaluation of the Green Cities Programme (2016-2021) SS21-169

Figure 9: Process of identifying sample of cluster projects



Source: EBRD GET project database

Annex 3. Evaluation Matrix

| EVALUATION QUESTION CRITERIA | JUDGMENT CRITERIA AND INDICATORS | METHODS AND SOURCES |
|--|--|---|
| <p>To what extent are EBRD's investments, TC and policy dialogue in decarbonisation of built environment aligned with the challenges and needs of the clients and countries/ municipalities of operation?</p> <p>RELEVANCE, COHERENCE</p> | <ul style="list-style-type: none"> Relevance of investments, TC and policy dialogue activities of the selected projects to client's needs in public and private sector, and to their commitments to reducing GHG emissions <ul style="list-style-type: none"> Projects are coherent with existing national regulatory and strategic framework in the construction & buildings sector (for example EU Energy Performance and Buildings Directive), and are supporting advancement of national standards to match best international practices Projects' operational and transition objectives are coherent with clients' corporate strategies and vision with regard to reduction of GHG emissions, and cutting down energy and resources use | <ul style="list-style-type: none"> Document review <ul style="list-style-type: none"> Project approval documents Project level evaluations (8, one for each client) National and municipal regulatory and strategic frameworks International documents, regulations and standards (i.e. EDGE, LEED BREEAM) Client's corporate strategies and visions Countries'/cities' commitments to GHG emission reduction Internal interviews Interviews with the clients, as well as municipal and government stakeholders when relevant |
| | <ul style="list-style-type: none"> Relevance of objectives and activities of the projects aimed at the decarbonisation of the built environment to EBRD mandate <ul style="list-style-type: none"> Projects are in line with SCF priorities Projects are in line with GET approach, its standards and criteria Projects are in line with respective sector strategies and cross-cutting priorities, such as gender and inclusion | <ul style="list-style-type: none"> Document review <ul style="list-style-type: none"> EBRD strategic documents – SCF, sector strategies & initiatives, cross-cutting strategies GET and GET 2.1, including performance standards and criteria review Project evaluations in part of relevance Internal interviews |
| | <ul style="list-style-type: none"> Financial and non-financial additionality <ul style="list-style-type: none"> Projects' structure offers value that is not available on the market Private sector mobilisation achieved | <p>Document review</p> <ul style="list-style-type: none"> Project approval documents and regular reports TC and non-TC supporting documents Client reports and information available in public domain |

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| | <ul style="list-style-type: none"> - TC and non-TC finance used to enhance corporate governance standards in decarbonisation domain, and/or reducing the legal and regulatory gaps in the area of construction and buildings - TC and policy dialogue is used for enhancing awareness of the issues of decarbonisation in construction and buildings, as well as increasing demonstration effect of the projects | <ul style="list-style-type: none"> • External documents on national/municipal/ sectoral regulatory, legal and strategic frameworks in the area of decarbonisation |
| <p>Is EBRD's approach to decarbonisation of the built environment efficient and how did it evolve over time?</p> <p>EFFICIENCY, RELEVANCE</p> | <ul style="list-style-type: none"> • Adequate operational approach (bank execution performance) <ul style="list-style-type: none"> - Efficiency of internal operational model, including balance between HQ and RO-based expertise - Timeliness of implementation and disbursements - Procurement issues in public sector projects - Adequacy of monitoring and reporting arrangements - Evolution of operational model to ensure relevance in the changing strategic and regulatory context - TC and non-TC mobilisation and utilisation | <ul style="list-style-type: none"> • Internal interviews • Document review <ul style="list-style-type: none"> - Project operational and financial reports - Project evaluations in part of efficiency - Interviews with clients and stakeholders in 6 countries |
| | <ul style="list-style-type: none"> • Clients' perceptions of the EBRD's operational approach and its efficiency | <ul style="list-style-type: none"> • Document review <ul style="list-style-type: none"> - Project reports - Project evaluations • Interviews with clients and stakeholders in 6 countries |

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| <p>What are the results of EBRD's investments, and when relevant, TC and policy dialogue activities, what is their sustainability, and how they vary across sectors and geographies?</p> <p>EFFECTIVENESS IMPACT SUSTAINABILITY</p> | <ul style="list-style-type: none"> Progress made in achieving results <ul style="list-style-type: none"> Operational outputs and outcomes achieved Transitional outputs and outcomes achieved Financial results achieved Notable changes in results due to changes in strategic priorities and operational model | <ul style="list-style-type: none"> Document review <ul style="list-style-type: none"> Project evaluations in part of effectiveness TIMS, credit, financial, environmental reports, other internal results reporting Third party data for validating claimed results in reducing GHG emissions, energy and other resources use which may include, but not be limited to: (i) desk review of the level of certification achieved under a respective rating tool; (ii) selection of particular energy efficiency, indoor environmental quality, water and construction material criteria which can be field verified Physical walk through of the project with field verification of selected criteria where possible Interview with building management or facility management |
| | <ul style="list-style-type: none"> Indications of the changes in clients' corporate policies and governance model with regard to decarbonisation as a result of project activities (investments, TC, non-TC and policy dialogue when relevant) Results sustained after active EBRD interventions are completed, through clients' internal policies, mechanisms and investment decisions Notable differences between public and private sector clients | <ul style="list-style-type: none"> Document review <ul style="list-style-type: none"> Project and client reports Project evaluations in part of sustainability External data sources, including clients' websites Interviews with clients and stakeholders in 6 countries |
| | <ul style="list-style-type: none"> Progress made in achieving intended impact <ul style="list-style-type: none"> Contribution to impact achieved at the sector and country/ municipal level Notable differences between public and private sector operations in contribution to impact, demonstration effect Notable differences across regions of operation in contribution to impact, demonstration effect | <ul style="list-style-type: none"> Document review <ul style="list-style-type: none"> Project evaluations in part of impact TIMS and environmental reports, other internal results reporting Third party data for validating claimed results in reducing GHG emissions, energy and other resources use through the review of current utility use data which can be performed via BMS screens and/or utility bills Project carbon footprint calculation depending on available data |
| | <ul style="list-style-type: none"> Indications of the changes in national/ municipal/ sectoral regulatory, legal and strategic frameworks in the area of decarbonisation of the built environment as a result of project | <ul style="list-style-type: none"> Project and client reports Project evaluations Interviews with clients and stakeholders in 6 countries |

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| | activities (investments, TC, non-TC and policy dialogue when relevant) | <ul style="list-style-type: none">• Third party data for validating claimed results in reducing GHG emissions, energy and other resources use through a comparison of energy efficiency and GHG reduction targets of the project and national/municipal requirements• Project carbon footprint calculation depending on available data |
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Annex 4. Carbon footprint of evaluation

As the theme of this study is directly related to reducing carbon footprint, the team took decision to take stock of its carbon footprint while performing this evaluation. 11 Projects are in five countries which were visited by core IEvD team and consultants. Team was flying to the cities and used car for travel between destinations within every country.

To account for carbon footprint of hotel accommodation a standard rate of 40kg/0.04t CO₂ per night per person was used.

For air travel the calculations online tool https://co2.myclimate.org/en/flight_calculators/new was used with the specific data for class of the travel (economy/business), aircraft type, number of passengers and type (one way/return).

The same website (https://co2.myclimate.org/car_calculators/new) was used for car transfers calculations. It was assumed that for all trips a diesel mid-range car was used, the correct distance from point to point was selected using Google Maps.

The results show that majority of carbon footprint comes from air travel. Moldova was the country with the biggest footprint (4.478 tonnes of CO₂). It should be noted that the number of team members travelling was different in each country. The total carbon footprint of all the travellers for all countries combined was 16.065 tonnes of CO₂, which is equivalent to 1.98% of 2022 EBRD new HQ facilities and company vehicles carbon footprint (as per EBRD's Fourth TCFD Report 2022).

Table 6: Carbon footprint for all missions travel (CO₂ in tonnes)

| Country | Air Travel | Hotels | Car transfers | Total CO ₂ |
|----------------------|--------------|-------------|---------------|-----------------------|
| Bosnia & Herzegovina | 1.673 | 0.16 | 0.044 | 1.877 |
| Greece | 3.779 | 0.4 | 0.257 | 4.436 |
| Lithuania | 3.023 | 0.24 | 0.076 | 3.339 |
| Moldova | 3.877 | 0.48 | 0.121 | 4.478 |
| Romania | 1.358 | 0.2 | 0.377 | 1.935 |
| Total | 13.71 | 1.48 | 0.875 | 16.065 |

Figure 10: Combined mission footprint (CO₂ in tonnes)

