

APPROACH PAPER

Green Cities programme – interim evaluation



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Abbreviations

ABI	Annual Bank Investment
ATQ	Assessment of Transition Qualities
CC	Climate change
CDP	Corporate Development Programme
CFT	Clean Technology Fund
CS	Country Strategy
EE	Energy efficiency
EPG	Economics, Policy & Governance (EBRD)
EvD	Evaluation Department (EBRD)
FOPIP	Financial and Operational Performance Improvement Programme
GC	Green Cities
GCAP	Green City Action Plan
GCF	Green Climate Fund
GECA	Green Economy & Climate Action (EBRD)
GET	Green Economy Transition
GHG	Green House Gas
GrCF	Green Cities framework
GrCP	Green Cities Programme
ICLEI	Local Governments for Sustainability (NGO)
MEI	Municipal and Environmental Infrastructure
NDC	Nationally Determined Contribution
OECD	Organisation for Economic Co-operation and Development
PPP	Public Private Partnership
PSC	Public Service Contract
PSP	Private Sector Participation
SCF	Strategic and Capital Framework
SI3P	Sustainable Infrastructure Policy & Project Preparation (EBRD)
SIG	Sustainable Infrastructure Group (EBRD)
SIP	Strategy Implementation Plan
SO	Sub-operation
TC	Technical Cooperation
TI	Transition Impact
TMEA	Turkey, Middle East and Africa
TQ	Transition Quality

1 Introduction

1.1 Objective of the evaluation

The Evaluation Department's (EvD) 2021 Work Programme¹ includes a thematic evaluation of the Green Cities Programme (GrCP) to be delivered in 2022.

GrCP is an ambitious programme aimed at supporting cities, the biggest greenhouse gas (GHG) emitters, in adapting to and mitigating climate change. It was initiated in 2016 with the approval of the first Green Cities Framework (GrCF), as an instrument of scaling up EBRD's Green Economy Transition (GET) investment in cities across the Bank's countries of operations. The programme is on-going, with rapid expansion of the number of cities involved and number of investment projects launched. The framework that underpins this programme (currently the second Green Cities framework, GrCF2) was extended in October 2020, and again in November 2021. This is therefore an **interim evaluation** of the programme.

The **purpose** of this evaluation is twofold. On the one hand, it is to contribute to institutional accountability by evaluating the past operations against commitments and expectations; on the other, it is to provide evidence and insights for institutional learning so that the continuation of the programme adds maximum value to the EBRD's ambitious green agenda.

The **objective** of the evaluation is to assess the merits of the Green Cities programme to the extent that they can be identified at this stage including the achievement of objectives and results, and to gather insights that would contribute to improvements in the design and implementation of the programme in its future iterations. The objective of the evaluation is also to contribute to the body of knowledge on the implementation of the Bank's strategic priorities including green investments, and make this knowledge available to internal decision-makers as well as external stakeholders involved in the programme – municipalities, private companies and CSOs.

The **scope** of the evaluation, from 2016 to 2021, covers the implementation of the GrCP from its launch under the initial framework (GrCF, November 2016)², the follow-up framework (GrCF2, October 2018)³ and its first extension (October 2020).⁴ The implementation of the GrCF second extension (November 2021)⁵ is outside the scope of this evaluation. However, the evaluation will take into account the design and objectives of the most recent extension, any relevant contextual developments in this period to understand the trajectory and future orientations of GrCF and to ensure that its recommendations are forward-looking and relevant for future operations. More detailed discussion of the scope, as well as the evaluation criteria, evaluation questions and focus of the evaluation including selection of operation samples are presented in the evaluation approach and methods (section 3).

1.2 Rationale for inclusion in the work programme

Green investments are at the forefront of the Bank's strategic agenda. The EBRD is committed to supporting its countries of operation in their transition to green, sustainable, low-carbon economies. To this end, the Bank has been scaling up its operations under GET. The EBRD has committed to full alignment with the Paris Agreement by end-2022, and aims to raise the share of green finance to above 50% over the current strategic period by 2025. The Bank announced that it has reached this target for 2021, with 51% of GET Annual Bank Investment (ABI).

The effects of climate change have costly effects on cities' basic services, infrastructure, housing, livelihoods, health and safety. At the same time, being major sources of GHG, cities are a key contributor to climate change.

¹ BDS20-240: EvD Work Programme & Budget 2021

² BDS16-207

³ BDS18-183

⁴ BDS18-183 (Addendum14)

⁵ BDS21-140

Estimates suggest that cities are responsible for 75 percent of global CO2 emissions, with transport and buildings being among the largest contributors.⁶

The volume of EBRD GET finance has had a growing trend both in absolute volumes and as a share of EBRD investment, and there is a significant interest in understanding the outcomes of these operations and their contributions to green transition. While high level strategic targets are defined in terms of inputs (volumes of green finance), these need to be complemented by a robust system of monitoring and evaluation to provide contextualised information on the extent to which investments and policy actions have achieved their intended impacts and on the factors that facilitate their effectiveness.

EvD is contributing to the Bank's green agenda and strategic objectives by delivering a series of green-focussed evaluations over the Strategic and Capital Framework (SCF) 2021-2025 period. These evaluations are building a body of evidence enabling key stakeholders to gain deeper understanding of the results of EBRD green finance and policy actions.

The evaluation of Green Cities programme will be an important building block in this regard. Designed to bring together investment, capacity building and policy action, the programme has grown at a rapid pace since its inception, achieving over €800m ABI in 2021 under the two Green Cities frameworks. GrCP's objectives reach beyond the scope of individual projects and encompass expected significant environmental outcomes as well as mobilisation of green finance and facilitating use of green city bonds. After five years of implementation, the framework has reached its first phase of maturity and is ready for interim evaluation through which emerging results and lessons can be identified. When approving the extension of GrCF2 in November 2021 the Board of Directors has underlined the importance of independent evaluation for informing its future decisions with regard to GrCF.

2 Green Cities programme overview

2.1 EBRD strategic context

2.1.1 *Strategic and Capital Framework*

GrCF was first approved in 2016, in the framework of the first Strategic and Capital Framework (SCF).⁷ The SCF committed to having "*an even higher proportion of activities that incorporate sustainable energy and resource efficiency components and considerably stepped-up operations in energy security*".⁸

In the current SCF 2021-2025 one of three strategic themes is supporting the transition to green, low carbon economy. "*The goal is to raise the share of green finance to at least 50 per cent and to reduce net CO2 by 25 to 40 million tonnes by the end of the SCF period*".⁹ This SCF refers to GrCP directly in its sectoral strategic direction for sustainable infrastructure: "*The Bank deploys innovative approaches to sub-sovereign lending, including the Green Cities programme, which will be an important component in the strategy period*." The Programme is further referred to as a component of promotion of Equality of Opportunity, whereby GCs are a vehicle to enhanced access to services via the integration of gender and inclusion aspects. Finally, GCAPs are further referred to in the directions for accelerating digital transition. The SCF is operationalised in Strategy Implementation Plans (SIPs); the current SIP 2022-24¹⁰ includes a reference to GCAPs in the key areas for operational prioritisation of GET.

2.1.2 *Green Economy Transition Approach*

The initial GET Approach for 2015-2020¹¹ spelled out Bank's specific commitments to green finance and alignment with global commitments and objectives, including Paris Agreement targets. GET 2.1 approved in 2020 for the period 2021-2025,¹² scales up the ambition and offers a clearer framework of Bank's policy and investment

⁶ <https://www.unep.org/explore-topics/resource-efficiency/what-we-do/cities/cities-and-climate-change>

⁷ BDS15-013 (Final): Strategic and Capital Framework 2016-2020

⁸ Ibid., p.15

⁹ BDS20-030 (Final): Strategic and Capital Framework 2021-2025, p. 8

¹⁰ BDS21-152 (Final): Strategy Implementation Plan 2022 - 2024

¹¹ BDS15-196 (Final): Green Economy Transition Approach

¹² BDS20-082 (Final): Green Economy Transition Approach 2021-2025

commitments at various tiers, including municipal. It also places a specific focus on green economic recovery from Covid-19 global health emergency. Specifically, GrCF is positioned as key instrument for defining green strategies and their action plans at municipal level; incorporating green dimension into recovery plans and strategies; enhancing municipal utilities' efficiency; innovation in municipal infrastructure; use of capital market tools such as municipal green bonds; as well as equal access to low-carbon and climate-resilient services and skills.

2.1.3 Sector strategies

The initial GrCF in 2016 was approved in the framework of the 2012 Municipal and Environmental Infrastructure (MEI) strategy.¹³ It referred to its alignment with this strategy in that it identifies municipalities as '*key players in addressing climate change*'. GrCF is at the heart of the following MEI strategy for 2019-2024,¹⁴ where it is a key element of Priority 1: Providing access to enhanced infrastructure. Green Cities are also a component of delivery on Priority 2, Driving sector sustainability, via Improving public governance and strengthening the institutional and regulatory context (reference to GCAPs); and Priority 3 Bridging infrastructure funding gaps via Implementing diversified and innovative financing schemes (reference to Green Finance Roadmaps). From geographic perspective, Green Cities are identified as a core instrument for MEI investment in all EBRD regions with the exception on Greece and Cyprus. No other sector strategies have strong imperative for the framework, although some strategies implementation toolkit include enabling elements, such as enhancement of legal and regulatory environment for green bonds in LC2 Strategy.¹⁵

2.2 Green Cities frameworks

NB: comparative overview of the main characteristics of the successive Green Cities frameworks and extensions is presented in Annex 1.

The initial Green Cities framework (GrCF, 48171) was approved by the EBRD Board of Directors in November 2016.¹⁶ The total headroom approved for the GrCF was €250m for an expected duration of five years. While its geographical coverage was all EBRD countries of operations, the framework intended to focus on Caucasus, Moldova and Belarus in the first instance, and further roll out to Western Balkans. The sub-operations (SOs) were to consist of sovereign and non-sovereign loans to governments, municipalities, municipal owned utility companies and private companies providing municipal services. The use of proceeds of the SOs were investments within municipal infrastructure sectors, which also addressed climate change mitigation or adaptation. The strategic context of the GrCF was firmly rooted in the context of climate change and the comprehensive need for scaling up financing for adaptation and mitigation investments. Internally, the framework was presented as an instrument of the GET approach, noting that investments in cities are seen as a '*key channel of delivering GET targets*'. GrCF introduced the following definition of a Green City, based on OECD advice.

Box 1: Green City definition

*A Green City is a city which shows high environmental performance relative to established benchmarks in terms of i) quality of environmental assets (air, water, land/soil and biodiversity), ii) efficient use of resources (water, energy, land and materials) and iii) mitigating and adapting to risks deriving from climate change, while maximising the economic and social co-benefits and considering its context (population size, socio-economic structure and geographical and climate characteristics).*¹⁷

The GrCF introduced a new systematic approach to prioritising investment at city level, underpinned by the development of Green City Action Plans (GCAPs). A city wishing to join the GrCF has to develop a GCAP as a conditionality to any future investments. The EBRD supports the development of the GCAPs through consultancies financed by technical cooperation (TC) funds. The GCAP is approved and adopted by the

¹³ BDS12-126 (Final): Municipal and Environmental Infrastructure Sector Strategy

¹⁴ BDS19-069 (Final) : Municipal and Environmental Infrastructure (MEI) Sector Strategy 2019-2024

¹⁵ Local Currency and Capital Markets Development Strategy, 2019-2024

¹⁶ BDS16-207

¹⁷ BDS16-207

appropriate municipal authorities. The aim is that after the initial investment, subsequent projects driven by the GCAP priorities will be launched and financed from a variety of sources, including other IFIs or commercial lenders.

The overall objective of the first framework, GrCF, was to serve as a ‘sector-wide catalyst for addressing environmental challenges’ at the city level. The overall GrCF objective was to achieve significant environmental improvement [*as defined through the GCAP methodology*] in at least one priority environmental challenge for each GrCF country of implementation, by the end of the framework (5 years). The transition objectives of the framework were articulated based on the pre-2016 Transition Impact (TI) concept.

The GrCF’s rapid implementation led to the follow-up framework (GrCF2, 50440 & 50674) being brought for approval after two years, in October 2018.¹⁸ The new framework proposed a scaled-up headroom of €700m for an expected duration of further five years. The GrCF2 continued to deploy similar instruments in the main municipal infrastructure areas while addressing climate change and environmental challenges. GrCF2 was split into two implementation windows, with Window I dedicated to co-financing with Green Climate Fund (GCF). In February 2020 the majority of EBRD finance allocated for Window I (WI) was reallocated to Window II (WII).¹⁹

The objectives of GrCF2 remained broadly consistent with GrCF, while pursuing enhanced ambition through higher impact thresholds, strengthened GCAP methodology and facilitation of access to finance. The second framework introduced ‘*enhanced level of ambition*’. One aspect of this was focused on further GCAP implementation, with at least half of SOs being follow-on projects on existing GCAPs. The methodology for GCAPs was also refined, paying more attention to coherence with the existing city plans and strategies. It also improved the process for stakeholders’ involvement and feedback loops in the GCAP development. Another change was introduced in the eligibility criteria and their ‘impact thresholds’, which were made more stringent for SOs. Finally, the framework brought new attention to helping cities access capital outside public finance.

The transition rationale of GrCF2 was based on the TQ-based transition concept and targeted TQ Green and Well-governed objectives. The transition objectives of GrCF2 were articulated within the Transition Qualities (TQ) framework. The key objectives on environmental improvements including policy interventions were operationalised under TQ Green. TQ Well-governed comprised objectives around the development and adoption of CGAPs; strengthening of contractual and regulatory setups at city level through Public Service Contracts (PSCs); tariff reforms; and improved access to green capital markets and Green Finance Roadmaps. Simultaneously transition objectives and benchmarks of the original GrCF were brought under the TQ framework and harmonised with GrCF2, while maintaining separate monitoring of two frameworks.

Both GrCF and GrCF2 were designed with significant TC support at framework, city, and project level, and anticipated further subsidies through non-TC grants and concessional finance. GrCF introduced framework level TC for GCAP development (approx. €300k per city) and a framework level GCAP manager position. In addition, similar to other SIG projects, pre- and post- signing TCs include support for feasibility studies, audits, gender advisory, Project Implementation Units (PIUs), corporate development programmes, CSO capacity building, etc.

An extension of GrCF2 in October 2020 added €950m headroom to Window II together with some revisions in the GCAP methodology.²⁰ The eligibility criteria for sub-operations of Window II remained unchanged, while some new use of proceeds were added. The extension also described the effects of the Covid-19 pandemic on the approach to the programme, manifested in the revisions of the GCAP methodology. The programme’s flexibility was enhanced with respect to engaging the appropriate counterparty. It can now include not only municipal authorities, but also regional or even central authorities, depending on country’s level of decentralisation.

The extension brought change to the framework’s transition ambition: only TQ Green remained in framework-level focus, while secondary TQs were cascaded down to SOs without framework level targets. The main framework level transition objective under TQ Green remains: significant environmental change in each

¹⁸ BDS18-183

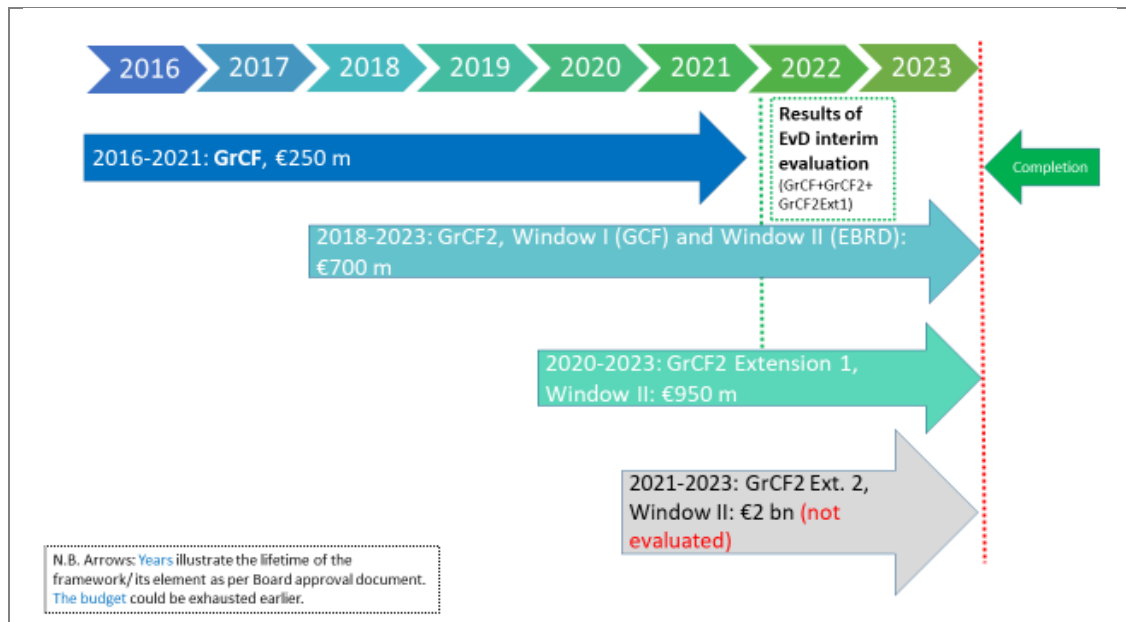
¹⁹ BDS18-183 (Addendum 4)

²⁰ BDS18-183 (Addendum 14)

country of GC operation through the implementation of GCAPs. However, the secondary mandatory Well-governed TQ became optional – each SO can choose between Well-governed, Resilient, Competitive or Inclusive TQ, depending on the project’s nature.

In November 2021 a second extension to GrCF2 Window II (53170) was approved, with a headroom of €2 billion.²¹ While approved with its own project document rather than an addendum to GrCF2, this extension represented an additional headroom to Window II, still to be implemented within the timeframe of GrCF2 by the end of 2023. *The implementation of this second extension is outside the scope of this evaluation.*

Figure 1: Green Cities frameworks timeline overview



Source: EvD elaboration

Box 2: Green City approach

A Green City Approach is an integrated, multi-sector process whereby a city’s environmental challenges are periodically identified, prioritised and addressed through targeted investments and services, regulations and other relevant policy instruments with the aim to enhance the city’s environmental performance in a cost-efficient and financially sustainable manner, while at the same time seeking to maximise the economic and social co-benefits.

Source: Green Cities Programme Methodology, EBRD 2016

2.3 Green Cities theory of change

The objectives and transition expectations of the GrCP have remained broadly consistent over the implementation period, allowing for the reconstruction of a unified theory of change (ToC). The overarching objective of the programme was to become a ‘sector-wide catalyst for addressing environmental challenges’. The objective for the framework is to deliver a ‘significant environmental improvement in at least one priority environmental challenge’ at city level, contributing to Green transition of the GrCF countries of operations.²² The initial focus of GrCF and GrCF2 on TQ Green and Well-governed was in the first extension of the latter (2020)

²¹ BDS21-140

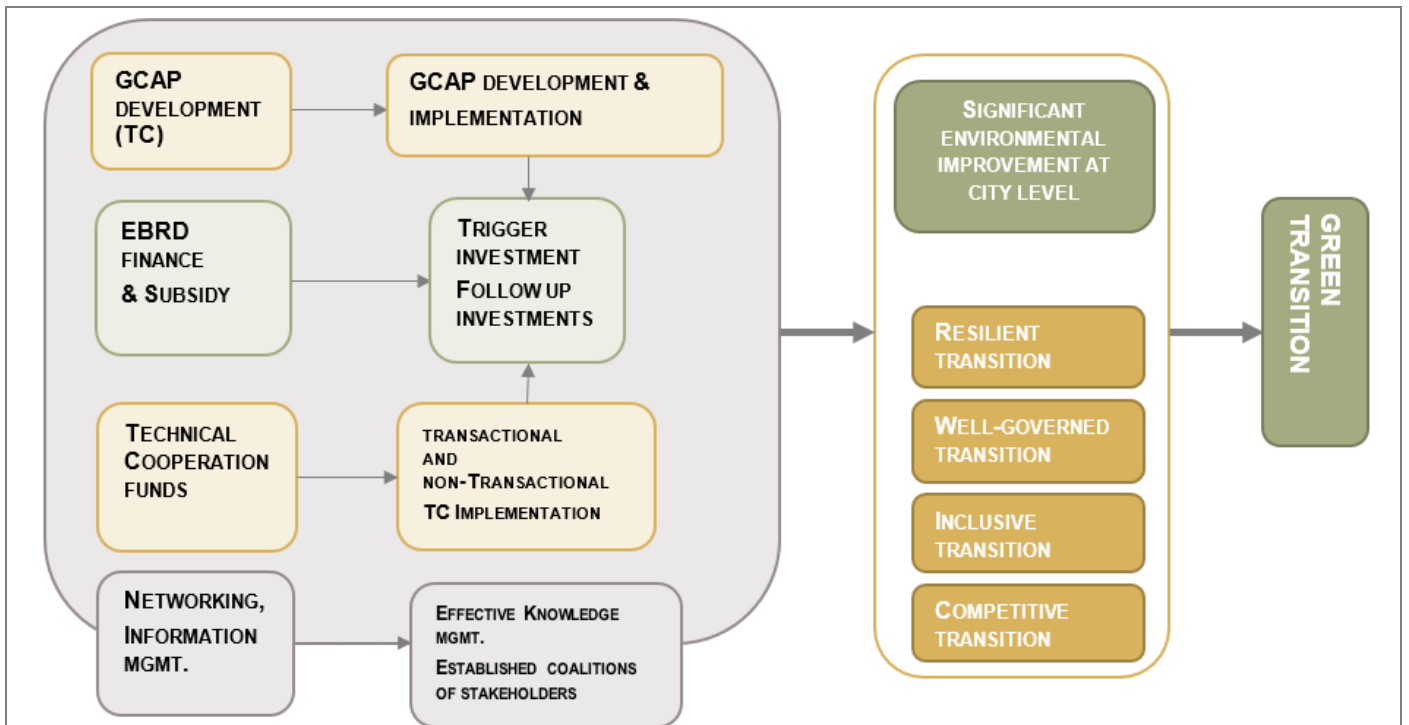
²² The target for this objective was for this significant environmental improvement to occur ‘for each of the GrCF countries’ in GrCF, which was then changed to ‘more than 50 per cent of the Green Cities’ for GrCF2.

broadened to include also other secondary TQs. The simplified reconstructed ToC for the programme is presented in Figure 2.

There are four broad types of inputs in GrCP, leading to mutually reinforcing results chains collectively leading to the overall GrCP objective of significant environmental improvement, as well as contributions to secondary TQs. The framework's operation through the development of GCAPs and their prioritisation of investment and policy was meant to distinguish GrCP from a project-by-project approach – utilising synergies of coherent actions and including the mobilisation of finance for the implementation of GCAP priorities.

- i) **The Programme's approach is underpinned by the development of GCAPs.** The engagement with a city typically starts through the first investment (*'trigger investment'*), in the course of which the municipal authorities commit to the development and submission for adoption of a GCAP. The EBRD supports the development of the GCAPs through consultancies financed by TC funds. The aim is that after the initial investment, subsequent (*'follow-up investments'*) projects will be driven by the GCAP priorities.
- ii) **EBRD provides finance for the implementation of investments, as well as subsidy.** The GrCF was designed with anticipation of EBRD finance blended with concessional loans and capex grants where appropriate. The expectation is that follow-up investments may be financed from a variety of sources, including other IFIs or commercial lenders. In this way, the GrCP becomes not the sole financier of the GCAP implementation but a 'catalyst for addressing environmental challenges', as envisioned by the Programme.
- iii) **GrCP is supported by significant TC funds.** In addition to the TC provided for the development of GCAPs, TC funds are used to support GrCP at framework, city, and project level. Pre- and post- signing TCs include support for feasibility studies, audits, gender advisory, PIUs, corporate development programmes, CSO capacity building, as relevant. GrCF2 also introduced TC for the preparation of Green Finance Roadmaps, a tool to facilitate the access to cities to green capital markets.
- iv) **GrCP includes components of knowledge management and learning, intended to connect all its activities.** The Programme supports learning across its various activities and geographic locations, to improve effectiveness over time. There are networking and learning events organised, as well as efforts to gather and apply lessons in GrCP implementation. These activities are supported via TC funds and internal EBRD budget including staff contributions.

Figure 2: Simplified Theory of Change for GrCP



Source: EvD elaboration

2.4 Organisational setup/ Governance

GrCF's strategic management is split equally between Sustainable Infrastructure Group's (SIG) Policy and Project Preparation team (SI3P) and Green Economy & Climate Action (GECA) department, with the main governance tool being a Steering Group comprising SIG and GECA senior management and the three Associate Directors (ADs) with overall responsibility for the programme.. The entire programme is managed by two ADs from SIG and GECA while the framework is co-managed by ADs from SIG. The ADs are supported by a team of bankers and sector specialists from the two departments.

There are no internal programme-level resources allocated to the programme and all synergetic activities are funded through project budgets (investment and TC) and core budgets of GECA and SIG.

Specific projects with a very wide geography and varied scope are managed by bankers from three Infrastructure geographic groups: Europe; Eurasia; Turkey, Middle East and Africa (TMEA), together with the power sector banking teams - Energy Europe and Energy Eurasia-MEA. Sector economists from Economics Policy and Governance (EPG) contribute to developing and refining GrCF methodology and transition impact framework, while also monitoring progress against achieving transition objectives at the framework and project level.

2.5 Green cities – portfolio overview

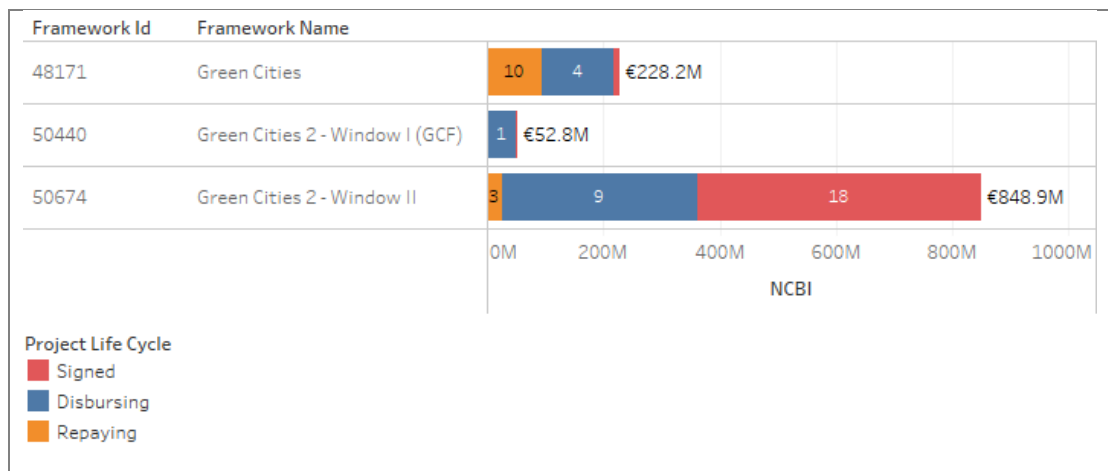
NB: This is a summary of the portfolio analysis presented in Annex 4. Data valid at month end October 2021

By the end of October 2021, GrCF frameworks reported over €1.14bn of ABI of which over €1bn has been in MEI sub-operations. GrCF operations represent an increasing share of MEI ABI overall. Since its approval in 2016, the GrCF framework and its successor GrCF2 generated over €1.14bn of ABI. In 2021 the ABI rose to record volume of over €400m already by the end of October. The majority of SOs and ABI was delivered in MEI sectors, which was the sole contributor until 2021, when Energy and Transport operations were signed.

A total of 47 signed projects were identified as sub-operations of GrCFs, representing total investment (NCBI) of €1,130m. To date, there have been two GrCF frameworks – GrCF (BA 2016, OpID 48171) and GrCF2 which was split into two implementation Windows with individual OpIDs (BA 2018, 50440 & 50674). Window II of GrCF2 was extended twice, the second extension in November 2021 was under a new OpID (53170). The frameworks represent a volume of investment (NCBI) of €1,130m over 47 signed operations.

In addition to the sub-operations of GrCFs, there were four projects signed, which the team identifies as follow-on Green City investments. These projects outside of GrCFs represent two stand-alone projects (Gyumri Urban Roads, 46540; Chisinau Solid Waste, 47314) and two sub-operations of the Municipal Resilience Refugee Response Framework (48536).²³ By the end of October 2021, these four operations represented NCBI of over €31m.

Figure 3: Green Cities frameworks NCBI, number of operations and life cycle stage (2016-2021), end October 2021

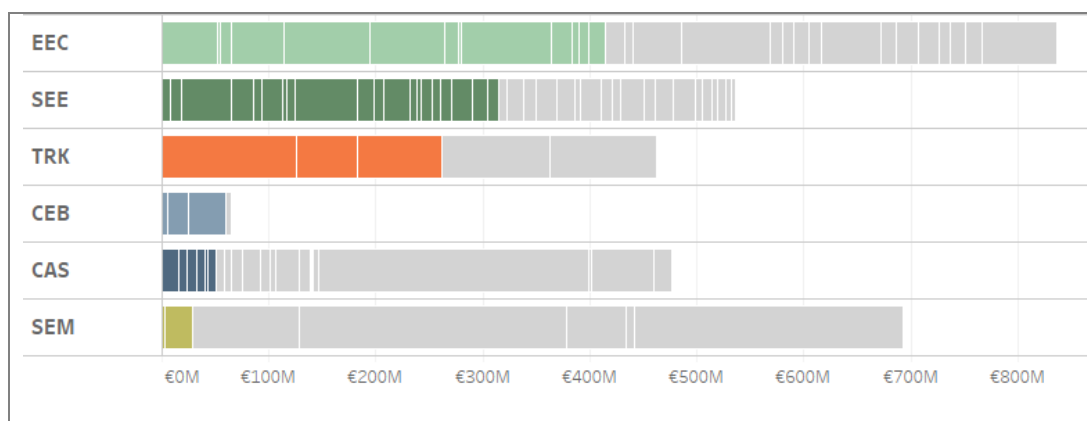


Undrawn commitments of the Green Cities frameworks are at 74% of NCBI. The initial GrCF, which was approved in 2016, has undrawn commitments at 26%. The undrawn commitments of the follow-up framework, GrCF2 approved in 2018, are at 86%, reflecting the relatively high proportion of projects at signed stage before any disbursements.

The largest region of GrCF investment has been Eastern Europe and Caucasus (EEC), assuming almost 37% of GrCFs NCBI, followed by South Eastern Europe (SEE) and Turkey. The largest region of GrCF operations based on NCBI so far has been EEC with almost 37% of investment volume (€414m over 13 projects), followed by SEE with 28% of investment (€316m over 20 projects). Turkey alone represents 23% of investment volume, which came from only three projects. Central Europe (CEB), Central Asia (CAS) and SEMED countries have so far been represented small share of investment (5% or less). There is a significant pipeline of projects (in various stages, from exploratory to Board approved but not yet signed) for all regions except CEB. Notably, there are two pipeline projects in Egypt with potential EBRD investment of €250m each. If all pipeline projects to materialise in their current shape, SEMED would become the second largest GrCF region in terms of investment volume.

²³ Sub-operations: 50488 GAM Lagoon Remediation Project, and 51044 GAM Solid Waste Crisis Response - Al Shaer WTS, both in Amman, Jordan

Figure 4: GCFs NCBI and pipeline per region at end of October 2021



Note: Projects in pipeline are in grey; pipeline projects are considered Active projects at all life cycle stages before signing

In terms of sector distribution, just over half of GrCF investments has been in urban transport, with further pipeline mainly concentrated in this sector as well. Currently signed projects' investment (NCBI) of almost €500m in urban transport represents some 44% of total NCBI but with additional urban transport projects classified under Municipal services. The existing pipeline points to further concentration of investment in urban transport sector, with notable large pipeline projects including Tbilisi Bus III (€83m, Board approved), Alexandria metro (€250m, Board approved), and further €700m of investment in projects having passed concept review. Water and Sewage sector represents some 12% of NCBI; here however as well with additional investment in this area classified under Municipal services, the Water and Sewage sector would assume 17% of NCBI and represent second largest share of investment.

Overwhelming majority of investment (93%) is in the State portfolio, and over a half (58%) in Non-sovereign risk. All MEI projects are classified as State portfolio; there are two projects in Private portfolio so far, one in Energy and one Transport. Non-sovereign projects represent majority of investment (58%, €660m). Turkey, SEMED and Central Europe projects are only in non-sovereign risk; there is however a large sovereign pipeline in SEMED.

GrCFs reported €150m in Annual Mobilised Investment (AMI), associated with 13 operations. AMI is the volume of commitments from entities other than the Bank made available to the client due to EBRD's direct involvement in mobilising external financing during the year. AMI can include both public and private sources of finance. Out of 13 projects that reported AMI, only three projects reported private sector mobilisation, totalling over €100m through syndication, parallel loan and unfunded risk participation. However, as of 2021 the definition of AMI has changed²⁴ in line with SCF focus on private mobilisation, and will no longer include donor fund contributions such as GCF or CTF.

The GrCP is associated with relatively high level of TC and non-TC financing. This is due to the specificity of the Programme, whereby the type of TC and non-TC commonly associated with MEI projects is further complemented by TC contributions at city level, most prominently for the development of GCAPs. In November 2021 the Board document for the GrCF2 second extension presented a cumulative overview of TC and non-TC commitments associated with GrCP to date (September 2021). It indicated cumulative commitments of €13m for the development of GCAPs, €28m for other TC (mainly transactional) which is in line with standard MEI investments, and €124.5m for non-TCs (investment grants and concessional loans).

3 Approach and methods

3.1 Scope and approach

This is an interim evaluation of the Green Cities Programme (GrCP). As described in the context section, GrCP consists of the investments made by EBRD under the Green Cities Frameworks (GrCFs) but extends substantially

²⁴ BDS20-147(Final)

beyond that through the employment of technical cooperation (TC) funds. These funds facilitate activities and results not only at the level of individual investments (sub-operations) but also at city level (GCAPs) and beyond (networking activities, knowledge sharing, etc.).

The **scope** of the evaluation covers the implementation of the GrCP from its launch under the initial framework in November 2016 until November 2021, when the second extension of the second framework was approved. The GrCP sets itself an ambitious overarching goal of being a sector-wide catalyst for addressing environmental challenges at the municipal level. Therefore, while the terms GrCF and GrCP may be used somewhat interchangeably, this evaluation considers activities of the Programme, beyond the strict confine of the investment operations, as part of its scope and remit. These activities and their expected results and contributions to transition have therefore also been included in the reconstructed Theory of Change (ToC), as presented in section 2.3.

This evaluation is guided by the OECD-DAC evaluation criteria, with particular focus on **relevance, coherence, effectiveness and efficiency**.

The evaluation will be a **mixed-methods theory-based evaluation**. The evaluation will draw on both quantitative data analysis, such as portfolio analysis, and qualitative methods, such as case studies, stakeholder interviews and documentary review. The evaluation of effectiveness (achievement of results) will be based on the Theory of Change reconstructed by EvD and presented in Chapter 2.3. The reconstruction aims to accurately reflect the implicit ToC as articulated in the key GrCP documents, particularly the Board-approved framework documents and the TIMS objectives and benchmarks set up based on those. The evaluation of effectiveness will also address 'design for results', an assessment of the adequacy or completeness of the ToC with respect to the intended overall objective; this might also indicate any missing elements of the results chain and casual links that currently are not present but should be.

3.2 Evaluation Questions

The evaluation will answer the overarching question of the Programme's progress towards its main objective:

To what extent has the GrCP become a sector-wide catalyst for addressing environmental and climate change challenges at municipal level?

It will do this through the discussion of three specific evaluation questions, for which EvD developed the detailed analytical framework (the evaluation matrix) presented in Annex 3. These questions are:

EQ1: To what extent has the GrCP approach been meeting partner cities' needs and supporting EBRD strategic objectives?

This question addresses the evaluation criteria of *relevance* and *coherence*. With respect to internal institutional relevance, the evaluation will focus on the Programme's alignment with the EBRD mandate and strategic institutional priorities including the GET approach and cross-cutting priorities such as gender, inclusion, and most recently digitalisation. The evaluation will also assess to what extent the GrCP approach effectively prioritises local transition challenges. As the GrCP approach is centred around the development of city-level action plans, this evaluation question will discuss to what extent these plans are coherent with the existing strategic framework and action plans at municipal level, specifically in the area of climate change and environmental action. It will also check its coherence with other municipal commitments with regards to emission reduction and climate change mitigation/ adaptation made either directly (e.g. C40 membership pledge) or via national commitment instruments (e.g. NDCs). It will discuss the appropriateness of GCAPs as instruments for investment planning vis-à-vis the cities' level of fiscal autonomy. The relevance of the action plans to EBRD's mandate and value added will also be assessed. Finally, the financial and non-financial additionality of GrCP will be the subject of this question – focusing mostly on the Programme's approach to mobilisation of private sector finance, as well as its justification for non-TC utilisation in line with the Bank's guidelines.

EQ2: How efficiently has GrCP utilised resources for implementation and delivery of its objectives?

The *efficiency* of the GrCP will be evaluated with the focus on the efficiency of the governance of the Programme, including internal organisation being fit for purpose (Steering Group, cross-team, and HQ-RO), the balance of the use of external consultants versus internal expertise in delivering the key pillars of the Programme, and the adequacy of the management with respect to local counterpart capacity. The question will also cover the timeliness of implementation, including the benefits of the synergies between the different components of the Programme; GrCF disbursement rates, also vis-a-vis other MEI projects; and use of TC for achieving programme's goals. A specific angle of GrCF delivery during Covid-19 pandemic will be evaluated.

EQ3: What progress has GrCP made in 5 years since inception in delivering its stated objectives and contributing to transition?

The final question will assess the progress of the Programme on the achievement of its results. The focus will be on the evaluation of the Programme as a whole and the value added of the programmatic approach vis-à-vis project-by-project implementation. The main objective of the GrCP was to deliver a significant environmental change at municipal level. The first GrCF was approved in 2016 with a five-year horizon for delivering results. By 2022, there should be substantial implementation progress in the 'first generation' of Green Cities to assess the trajectory and likelihood of contributions to Green impacts. As the Programme's reconstructed theory of change suggests, this will not only be dependent on the progress with physical implementation of municipal investments. The evaluation will look into whether the approach through GCAPs added value in the quality of results – **do the action plans and accompanying policy engagement serve their role as catalysts of investment and policy actions in areas with the greatest needs and most impact?** This is a question of synergies and coherence of actions across the Programme's components in the pursuance of objectives. The extent to which network building and capacity building activities as well as knowledge sharing lead to effective learning for results and innovating will also be part of this evaluation question. The evaluation will also investigate the progress on results under other TQs to the extent feasible – most prominently Well-Governed, encompassing enhancement of corporate governance standards, where objectives and targets were also articulated at framework level; as well as Resilient objectives in facilitating cities' access to green finance. Where possible, the results in secondary TQs at SO level will also be considered.

3.3 Methods of data collection & sources of data

The evaluation will make use of the following data collection and data analysis methods.

Document review

Collection and review of data and information where already available in existing document will be of particular importance. This will include internal (EBRD, GrCP) as well external documents (including donors and concessional finance providers like GCF). This is expected to include EBRD strategic documents as well as key documents relating to the setup and implementation of GrCP, including internal operational guidelines and methodology, consultant ToRs, and similar. Key part of the review will also be Bank's existing monitoring documentation, as well as GrCP specific documents, such as GCAP monitoring, consultants' reports, and policy action reports. In particular, review will include:

- Board approval documents at framework level, sub-operation level, non-objection
- EBRD strategic documents, including SCF, sector strategies and initiatives, GET
- Relevant Transition gap and diagnostic reports
- Monitoring documents, including TIMS, PMM, credit reports, GCAP development and reporting
- TC and non-TC reports, including TCom submissions, TC reporting, consultants' reports, non-TC justifications
- Contextual external documents, including partner city strategic and planning documents, documents on programmes and initiatives similar to GrCP, relevant documents from central and municipal governments, other IFIs and the EU. This might include evaluations by partner institutions.

Quantitative data analysis

Where sufficient data available, the evaluation will make use of quantitative data analysis. This pertains first and foremost to portfolio analysis, the basics of which have been developed during preparation of this approach paper. It might be developed further at the main stage of evaluation in order to answer the evaluation questions, and can include data on additionality and private sector mobilisation, on undisbursed commitments or cancellations, and quantitative data available from previously conducted or own surveys. The sources for quantitative data are expected to include:

- EBRD DataWarehouse and Tableau data server
- TCRS data
- Internal GrCP monitoring, including GCAP monitoring
- Externally available datasets on contextual information
- Surveys of key external stakeholders involved in the preparation of GCAPs and delivery of investment projects – consultants, city officials, Green Cities co-ordinators

Semi-structured interviews

Semi-structured interviews will be the main tool of collection of primary data for the evaluation. This will include interviews with the Bank's Board and staff, including the GrCP team (both HQs and ROs), as well as GrCP coordinators and consultants delivering the Programme's activities. In the framework of the case studies (see below), counterparts of the Programme will be interviewed, and this is expected to include city officials, representatives of project clients, stakeholders from government institutions at different tiers, and CSOs where relevant. Evaluation team will also interview representatives of partner institutions, including donors and providers of concessional financing, IFIs, global networks and institutions working in the area of climate change, and representatives of EU institutions in countries of operations.

Case studies

Some of the main themes of the evaluation will be analysed through the medium of case studies. Three cities participating in GrCF will be selected as cases to support evaluative analysis along all three evaluation questions. Each case will feature an analysis of purposefully selected green city, based on their representativeness across relevant criteria, to illustrate broader points about the Programme.

Cities of all EBRD regions and countries of operations are eligible for GrCP, which means that standardised methodology of GCAP development is applied in vastly different governance contexts. EBRD countries have different models of decentralisation, including fiscal, and their cities have varied degree of autonomy. City cases will analyse the suitability and effectiveness of the GCAP as an investment and policy action prioritisation and planning tool.

The analysis will include scoping and design, engagement of the consultants, preparation of the GCAP, implementation of investment projects and technical cooperation, implementation of the GCAP beyond the EBRD-supported actions, capacity building and policy action, and particularly emerging results.

The evaluation team will carry out a detailed process analysis of GCAP preparation, that includes initial benchmarking exercise, mobilisation of the relevant network of stakeholders and establishing working relations with core municipal stakeholders, with clearly defined champion, appointment of consultants, engagement with the local stakeholders, political dialogue around GCAP and its final approval by city council or other relevant authority.

The case studies may use elements of social media sentiment/perception analysis to support findings around relevance, coherence and visibility of GrCP, where feasible.

Combined together, three city cases will enable a comparative analysis of the relevance and coherence of GCAP in different institutional settings, as well as contextualised illustrative examples of efficiency and effectiveness of the GrCP. They will be essential for the purpose of identifying useful lessons and specific patterns that might be applicable in the future engagements.

Table 1 The criteria for the selection of case study cities will include:

- Regional variety;
- Decentralisation model - the evaluation team will use a variety of sources covering several parameters, such as (i) cities' autonomy in decision making, including in the sectors of transport, infrastructure, environmental protection and land use; (ii) cities' powers in raising local taxes and borrowings at capital markets (through bonds); (iii) share of own incomes in municipal budgets; (iv) dependence on transfers from central budgets and their volumes, etc.
- Length of engagement – cities from the 'first generation' of GrCF should be included, where there is most likelihood for progress on implementation and results; a GrCF2 city might be considered as well, to be able to assess comparative progress in approach and methodology between the frameworks;
- Type of portfolio – from the initial portfolio analysis it is evident that the approach to investment is not alike in all Green Cities; this relates not only to the average size of investment project, but also for example the structuring of the finance (sovereign guaranteed or not);
- A city with progress made on catalysation of finance for follow-up investments and/or through the Green Finance Roadmap will be considered.
- Given the unfolding crisis situation in Ukraine with effects also on neighbouring countries, consideration will be given to the current circumstances.

The case studies are expected to be supported by field missions to allow in-person interviews with relevant municipal and other stakeholders, and will benefit from inputs of local consultant(s).

Table 1: Overview of key data for cities with completed and approved GCAPs (as of November 2021)

City	Country	Region	Initial project fwk	Number of investments under GrCF	NCBI under GrCF (€m)	Average size of project (€m)	Pipeline (from CR)	Sectors	Sovereign risk
Tirana	ALBANIA	SEE	GrCF	1	14.2	14.2	1	Water	Non-sovereign
Yerevan	ARMENIA	EEC	n/a	1*	20.0	20.0	0	Public transport	Sovereign
Gyumri	ARMENIA	EEC	n/a	0**	0.0	0.0	0	n/a	n/a
Zenica	BOSNIA AND HERZEGOVINA	SEE	GrCF	1	10.0	10.0	1	Municipal services	Sovereign
Banja Luka	BOSNIA AND HERZEGOVINA	SEE	GrCF	3	18.3	6.1	0	Water, District heating	Non-sovereign
Sarajevo	BOSNIA AND HERZEGOVINA	SEE	GrCF	5	63.0	12.6	3	Public transport, Water, Municipal services	Sovereign
Sofia	BULGARIA	SEE	GrCF	1	4.2	4.2	0	Public transport	Non-sovereign
Tbilisi	GEORGIA	EEC	GrCF	6	227.6	37.9	1	Public transport, Solid waste, Municipal services	Sovereign
Batumi	GEORGIA	EEC	GrCF	1	5.5	5.5	0	Public transport	Sovereign
Amman	JORDAN	SEM	GrCF2 WI	1***	2.8	2.8	0	Public transport	Non-sovereign
Pristina	KOSOVO	SEE	n/a	0	0.0	0.0	2	n/a	n/a
Chisinau	MOLDOVA	EEC	GrCF	1	10.0	10.0	0	Municipal services	Non-sovereign
Balti	MOLDOVA	EEC	GrCF	1	2.5	2.5	0	Public transport	Non-sovereign
Ulaanbaatar	MONGOLIA	CAS	GrCF	2	16.9	8.5	2	District heating, Solid waste	Sovereign
Skopje	NORTH MACEDONIA	SEE	GrCF	3	115.6	38.5	0	Water, Public transport	Sovereign
Craiova	ROMANIA	SEE	GrCF2 WI	1	24.2	24.2	0	Municipal services	Non-sovereign
Belgrade	SERBIA	SEE	GrCF	1	20.0	20.0	1	Municipal services	Non-sovereign

Izmir	TURKEY	TRK	GrCF	2	205.0	102.5	0	Public transport	Non-sovereign
Lviv	UKRAINE	EEC	GrCF	1	20.0	20.0	0	Solid waste	Non-sovereign

*) Project 52868 *GrCF2 W2 - ENA Investment Program* in Armenia is an investment with the national electricity distribution company ENA with the objective of nation-wide improvements in the distribution network; this will include benefits for both Yerevan and Gyumri estimated at about 50% of the overall investment. The project was approved for up to US\$ 80m.

**) Project 46540 Gyumri Urban Roads was signed outside the Green City Framework as a stand-alone operation, but is identified by the team as part of the GCAP implementation.

***) In addition, the team identifies two sub-operations of another framework as part of the GCAP implementation: 50488 GAM Lagoon Remediation Project, and 51044 GAM Solid Waste Crisis Response - Al Shaer WTS

3.4 Challenges and limitations

While the first GrCF was approved in 2016 with a five-year horizon for the achievement of its objectives, it is possible that at the time of evaluation these might not have yet been achieved or there is insufficient monitoring data available to provide evidence of that achievement. The framework and overall Programme has also evolved and grown in scope beyond what the initial framework anticipated. The evaluation will make efforts to ascertain the achievement of objectives to the extent possible at this time, and where data is not available the evaluation will attempt to make inferences about the trajectory and contribution to future results, as feasible.

As many previous evaluations established the Bank-wide systems for capturing and reporting the activities and outcomes of technical cooperation and policy dialogue are particularly inadequate for the purpose. The GrCP is a programme with a particularly large scope of TC elements, and elements of non-investment activity at framework level. Evaluation of non-investment activities in particular depends to a large extent on the availability of existing monitoring – this includes project-level TCs, as well as monitoring of GCAP implementation, policy dialogue activities, networking and capacity building events. While further information beyond existing reports will be sought through interviews, surveys and desk research, the evaluation will rely on the access to existing monitoring being made available by the GrCP team.

The evaluation is taking place in the context of ongoing Covid-19 public health crisis. The evaluation approach includes international travel in the framework of the proposed case studies. The evaluation will comply with all existing and newly emerging Bank and national restrictions on travel and personal meetings, which might limit the ability to travel or restrict particular countries for a field mission. Efforts will be made to substitute these with remote connections via videoconferencing for the purpose of interviews of relevant stakeholders both in and outside of EBRD; however, this might affect the scope or coverage of some case studies.

As of time of the finalisation of this Approach Paper, Ukrainian crisis is unfolding with wider implications for the neighbouring countries and the entire region. The evaluation team will liaise with the GrCP team to adjust the approach to reflect the current circumstances. This might result in some parts of the scope being removed from the evaluation, specifically primary data collection might be affected (interviews, surveys, field missions, etc.)

4 Administrative arrangements

4.1 EvD team and peer review

The evaluation team includes Olga Mrinska, Acting Director, and Regina Husakova, Associate Director, with Sofia Keenan, Analyst, providing necessary analytical and logistical support.

Consultants with the specialisation in green urban development will be hired to support evaluation in specific components. Separately local consultants will be engaged in selected case cities to ensure effective engagement on the ground and correct reflections on the local context. The role of local consultants might be modified depending on the travel restrictions for the core evaluation team.

Peer reviewers for draft report will be secured from GCF, IEG and/or EIB, with names confirmed at the later stage of evaluation.

4.2 Management counterparts

Management along with the Board of Directors are the main counterparts for this evaluation. Engagement with the core GrCP team during the delivery of this study is crucial. EvD will be engaging with SIG policy hub experts, MEI bankers, including those based in ROs, GECA and EPG specialists as well as GEI and ESD colleagues. EvD will maintain traditional channels of communication for review/ approval processes with two focal points – Banking Portfolio Department and Country Strategy Coordination and Results Management Department.

At the same time, given the nature of the evaluation, engagement with external stakeholders, particularly municipal partners, is essential and the evaluation team will make an effort to do it consistently and meaningfully.

4.3 Indicative timetable and dissemination plan

Timetable

Milestone	Date
Study starts	October 2021
Approach paper approved	February 2022
Consultants recruited	March-May 2022
Field missions complete	June 2022
Drafting of report w/ case studies	June-July 2022
Draft report with case studies circulated internally	July 2022
Draft report with case studies cleared by Chief Evaluator for circulation to external peer reviewers	July 2022
Draft report with executive summary cleared by Chief Evaluator for Management Comments	August 2022
Final report approved by Chief Evaluator	September 2022
Final distribution of report within the EBRD and to Board	October 2022
External publication of report	October 2022
Panel discussion of the results of evaluation	November 2022
Communication of evaluation results across networks and through social media	October-December 2022

Dissemination

This evaluation will include a number of deliverables targeted at various internal and external stakeholders. The evaluation team will prepare the final report and executive summary, as well as three stand-alone case studies. A number of presentations will be prepared for the Board and management, which might include video and audio materials. City case studies will be of particular interest for external stakeholders and the evaluation team will use several communication channels to disseminate them, which might include translation into local languages and reaching out to key stakeholders with the help of RO colleagues in respective countries. The evaluation team jointly with the GrCP team will explore the potential of Programme's networking events for disseminating and communicating evaluation results and lessons. Time and budget permitting, a short learning product assembling key lessons might be created and communicated to various international fora in green, municipal, IFI and evaluation domains.

4.4 Budget

The implementation of the various stages of this evaluation will require external expertise. The anticipated consultancy budget for this study is GBP 80,000. Travel budget is GBP 10,000.

Annex 1. Green Cities framework overview

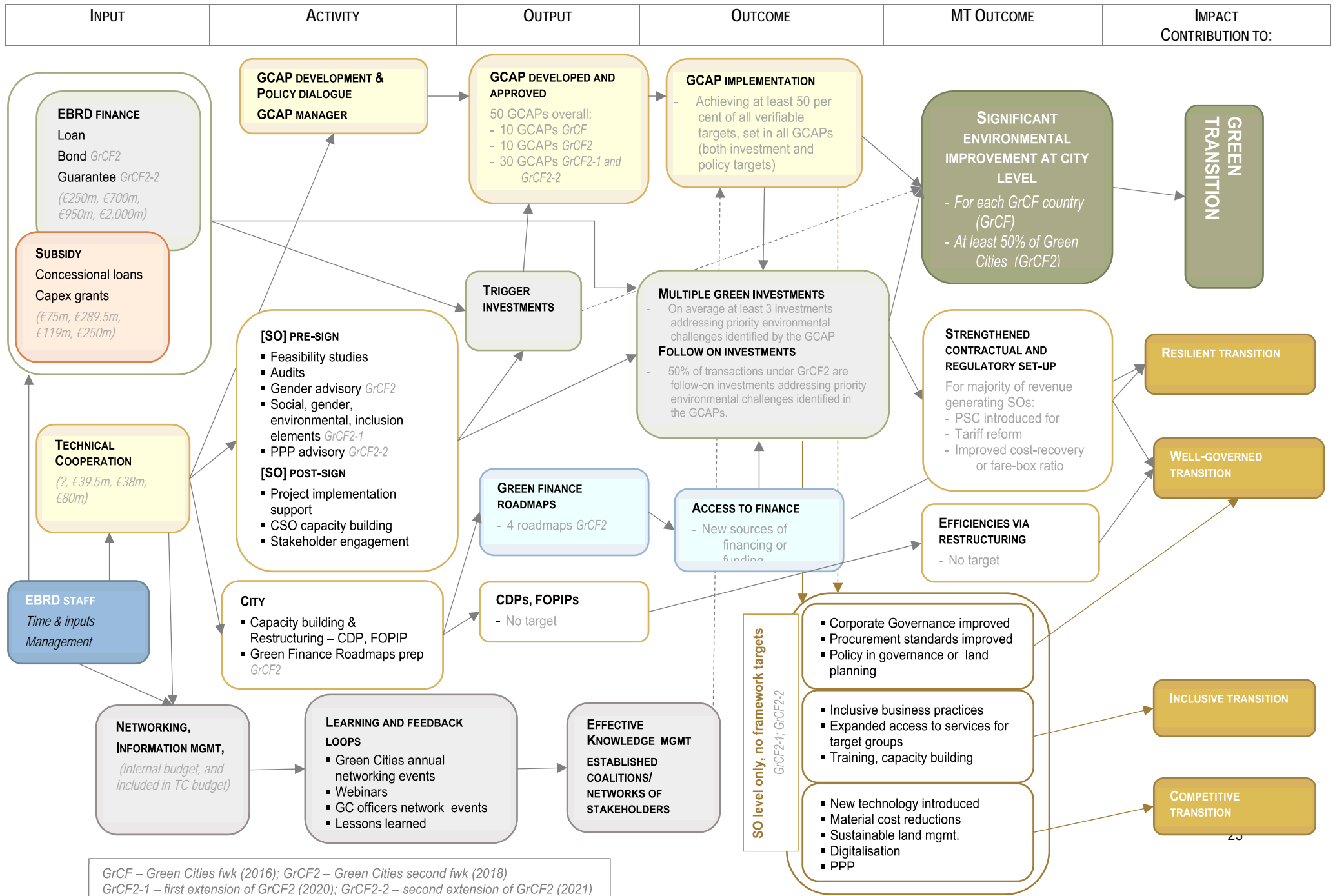
	GrCF BDS16-207, November 2016	GrCF2 BDS18-183, October 2018 BDS18-183 (Addendum 4), February 2020	GrCF2 extension of WII (GrCF2-1) BDS18-183 (Addendum 14), October 2020	GrCF2 extension2 (GrCF2-2) BDS21-140, November 2021 <i>(implementation out of scope of the evaluation)</i>																																																																					
Headroom & Financing plan	<p>€250m</p> <table border="1"> <tr> <td></td> <td></td> </tr> <tr> <td>EBRD</td> <td>€250m</td> </tr> <tr> <td>Donor concessional loan</td> <td></td> </tr> <tr> <td>Donor capex</td> <td>Up to €75m</td> </tr> <tr> <td>Donor TC</td> <td>Expected, not quantified</td> </tr> <tr> <td>Local contribution</td> <td>Expected, not quantified</td> </tr> </table>			EBRD	€250m	Donor concessional loan		Donor capex	Up to €75m	Donor TC	Expected, not quantified	Local contribution	Expected, not quantified	<p>€700m</p> <table border="1"> <tr> <td></td> <td>W I</td> <td>W II</td> </tr> <tr> <td>EBRD</td> <td>€350m</td> <td>€350m</td> </tr> <tr> <td><i>(Reallocation Feb 2020)</i></td> <td><i>-€217m</i></td> <td><i>+€217m</i></td> </tr> <tr> <td>GCF concessional loans</td> <td>€180m</td> <td></td> </tr> <tr> <td>GCF capex</td> <td>€30m</td> <td></td> </tr> <tr> <td>GCF TC</td> <td>€18m</td> <td></td> </tr> <tr> <td>Donor concessional loans</td> <td>€8m</td> <td></td> </tr> <tr> <td>Donor capex</td> <td>€21.5m</td> <td>€50m</td> </tr> <tr> <td>Donor TC</td> <td>€6.5m</td> <td>€15m</td> </tr> <tr> <td>Local contribution</td> <td>€60m</td> <td>€60m</td> </tr> <tr> <td>TOTAL before reallocation</td> <td>€674m</td> <td>€475m</td> </tr> </table> <p>Reallocation in February 2020: €217m of EBRD finance from Window I to Window II</p>		W I	W II	EBRD	€350m	€350m	<i>(Reallocation Feb 2020)</i>	<i>-€217m</i>	<i>+€217m</i>	GCF concessional loans	€180m		GCF capex	€30m		GCF TC	€18m		Donor concessional loans	€8m		Donor capex	€21.5m	€50m	Donor TC	€6.5m	€15m	Local contribution	€60m	€60m	TOTAL before reallocation	€674m	€475m	<p>€950m for Window II</p> <table border="1"> <tr> <td></td> <td>W II</td> </tr> <tr> <td>EBRD</td> <td>€950m</td> </tr> <tr> <td>Concessional finance and grants</td> <td>€119m</td> </tr> <tr> <td>TC</td> <td>€38m</td> </tr> <tr> <td>Local contribution</td> <td>€171m</td> </tr> <tr> <td></td> <td>€1,278m</td> </tr> </table>		W II	EBRD	€950m	Concessional finance and grants	€119m	TC	€38m	Local contribution	€171m		€1,278m	<p>€2,000m for Window II</p> <table border="1"> <tr> <td></td> <td>W II</td> </tr> <tr> <td>EBRD</td> <td>€2,000m</td> </tr> <tr> <td>Concessional finance and grants</td> <td>€250m</td> </tr> <tr> <td>TC</td> <td>€80m</td> </tr> <tr> <td>Local contribution</td> <td>€360m</td> </tr> <tr> <td></td> <td>€2,690m</td> </tr> </table>		W II	EBRD	€2,000m	Concessional finance and grants	€250m	TC	€80m	Local contribution	€360m		€2,690m
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Instrument	Sovereign and non-sovereign loans to governments, municipalities, municipal owned utility companies and private companies providing municipal services.	Sovereign and non-sovereign loans to governments, municipalities, municipally owned and private companies, and other sovereign entities, together with bonds . Some loans in LCY.	No change	Loans, bonds, and guarantees, to sovereigns, state owned enterprises, municipalities, municipal owned utility companies, private companies, and other sovereign entities. Some loans in LCY.																																																																					
Use of proceeds	Investments falling within the municipal infrastructure sectors of urban transport, including street lighting and automated fare collection, district heating, water and wastewater, solid waste or energy efficiency in public buildings and addressing climate change mitigation and adaptation	Cover the main municipal infrastructure areas including district energy (both cooling and heating), water and waste water, solid waste management, low-carbon and climate resilient buildings (public and residential), urban transport, street lighting, automatic fare collection and metro rolling stock and infrastructure and, where it makes sense, green smart solutions; and address climate change mitigation or adaptation and cities' local environmental challenges .	Cover the core urban sectors of urban transport, water and waste water, solid waste management, district energy, street lighting and low-carbon and climate resilient buildings. Beyond this, it will also seek to promote areas which have been less prominent to date, including nature based solutions, more effective integration of climate resilience/adaptation (including flooding), renewables, smart solutions and urban regeneration .	Cover the core urban sectors of district energy, energy distribution, low-carbon and climate resilient buildings, nature based solutions, solid waste management, street lighting, urban transport, urban drainage or water and wastewater. Within these sectors also continue to promote effective integration of resilience/adaptation (including flooding), renewables, digital, circular economy, urban regeneration, gender and inclusion and crowding-in the private sector. Low-carbon and renewable power will be further emphasised .																																																																					

				GCAPs clearly to addressing city specific priority climate and environmental challenges and the clear link to Nationally Determined Contributions ('NDCs') .
COOs	All COOs, starting in Caucasus, Moldova and Belarus,) and rolling out to the Western Balkans; other regions within the Bank's remit on a needs basis	WI: Albania, Armenia, FYR Macedonia, Georgia, Jordan, Moldova, Mongolia, Serbia and Tunisia. WII: All COOs	No change	No change
Eligibility	<ul style="list-style-type: none"> - GET - Eligible sector <u>or</u> climate change mitigation/adaptation - Covenant on GCAP with the City - Addressing a priority environmental challenge in all subsequent investments - EU environmental standards, or reducing pollution or GHG by at least 15%, or energy efficiency improvement by at least 15%, or promoting climate change adaptation 	<ul style="list-style-type: none"> - GET - Eligible sector <u>and</u> climate change or local environmental challenges - Minimum level of concessionality - Covenant on GCAP with the City in trigger investment - Addressing a priority environmental challenge per GCAP in all subsequent investments - Specific impact thresholds <ul style="list-style-type: none"> ▪ Mitigation projects: reduce GHG by at least 20% or improve EE by at least 20% ▪ Adaptation projects: Climate Resilience Benefit Ratio of at least 10% ▪ Environmental impacts outside of CC: EU environmental standards, or reducing pollution or GHG by at least 20%, or energy efficiency improvement by at least 20% - Cities of population >100k <p>GCF specific:</p> <ul style="list-style-type: none"> - Target CC impacts - Investment cost per tonne of CO2 eq. reduced below € 50 / tonne for mitigation projects in all sectors other than urban transport 	No change	No change except cities w/ population >50k
Objective	<p><u>Over-arching aim:</u> Serve as a sector-wide catalyst for addressing environmental challenges at the City level</p> <p><u>Overall objective</u> To achieve a significant environmental improvement in at least one priority environmental challenge for each of the GrCF countries</p> <p><u>Implementation objective</u> At least 50% of all verifiable targets in all GCAPs achieved within 5 yrs.</p>	<p><u>Over-arching aim:</u> Serve as a sector-wide catalyst for addressing environmental challenges at the City level</p> <p><u>Primary objective</u> To achieve significant environmental improvements and promote the Green transition quality within the targeted cities.</p> <p><u>Implementation objective</u> At least half of all SOs to be follow-on transactions under GCAPs.</p>	<p><u>Aim:</u> Serve as a sector-wide catalyst for addressing environmental challenges at the City level</p> <p><u>Overall objective:</u> To help Green Cities to scale up their green ambitions and achieve significant environmental improvements.</p> <p><u>Implementation objective</u> At least half of transactions (under GrCF2 and future extensions) are follow-on investments</p>	<p><u>Overall objective:</u> To help Green Cities to scale up their green ambitions and achieve significant environmental improvements.</p> <p><u>Implementation objective</u> At least half of transactions (under GrCF2 and future extensions) are follow-on investments</p>

			addressing priority environmental challenges identified in the GCAPs.	addressing priority environmental challenges identified in the GCAPs.
Transition objectives	<p><u>Framework for Markets</u></p> <ul style="list-style-type: none"> - GCAPs, PSCs, Tariffs <p><u>Demonstration of new replicable behaviour and activities</u></p> <ul style="list-style-type: none"> - Significant environmental improvements <p><u>Demonstration of Successful Restructuring</u></p> <ul style="list-style-type: none"> - CDPs, FOPIPs - Reduction of GHG or pollution, or improved EE <p><u>Private sector participation</u></p> <ul style="list-style-type: none"> - incentive based outsourcing or management contracts <p><u>Setting standards</u></p> <ul style="list-style-type: none"> - no specifics 	<p><u>TQ Green</u></p> <ul style="list-style-type: none"> - Environmental improvements - Policy interventions w/ environmental benefits <p><u>TQ Well-Governed</u></p> <ul style="list-style-type: none"> - Improve planning and supervision of green activities through GCAPs - Strengthen contractual and regulatory setup (PSCs, tariffs) - Access to green capital markets – Green Finance Roadmaps 	<p><u>Primary FWK level: TQ Green</u></p> <ul style="list-style-type: none"> - Environmental improvements - Improve planning and supervision of green activities through GCAPs <p><u>Secondary SO level: selective TQ Well-governed</u></p> <ul style="list-style-type: none"> - Tariff, PSCs, corporate governance, procurement, capacity building <p>TQ Inclusive</p> <ul style="list-style-type: none"> - Inclusive policies/ practices, training, capacity building <p>TQ Resilient</p> <ul style="list-style-type: none"> - Green Finance Roadmaps, access to new sources of financing, policy <p>TQ Competitive</p> <ul style="list-style-type: none"> - New technology, restructuring, sustainable land mgmt, capacity building 	<p><u>Primary FWK level: TQ Green</u></p> <ul style="list-style-type: none"> - Environmental improvements - Improve planning and supervision of green activities through GCAPs <p><u>Secondary SO level: selective TQ Well-governed</u></p> <ul style="list-style-type: none"> - Tariff, PSCs, corporate governance, procurement, capacity building <p>TQ Inclusive</p> <ul style="list-style-type: none"> - Inclusive policies/ practices, training, capacity building <p>TQ Resilient</p> <ul style="list-style-type: none"> - Green Finance Roadmaps, access to new sources of financing, policy <p>TQ Competitive</p> <ul style="list-style-type: none"> - New technology, restructuring, sustainable land mgmt, capacity building, PPP contracts
ETI	80	70 baseline 75 for transactions that are (i) follow-on transactions with a green city, <u>and</u> (ii) based on a GCAP that explicitly ranks potential investments on the basis of greening impact <u>and</u> (iii) where the project is a top priority in this quantitative GCAP prioritisation	70 baseline 75 for transactions that are follow-on transactions with a Green City that (i) addresses priority environmental challenge identified in a city's GCAP and meet an ambitious predefined green impact threshold, <u>or</u> (ii) promotes and helps implement ambitious priority policy actions, as identified in the GCAP.	No change
TC	<p><u>Fwk level</u></p> <ul style="list-style-type: none"> - GCAP & Policy Dialogue – €300k per city - GCAP manager – €275k <p><u>SO level</u></p> <p>Pre-signing</p> <ul style="list-style-type: none"> - Feasibility Study; €200k per SO - Audit and restatement of financial accounts; €25k per SO 	<p><u>Fwk level</u></p> <ul style="list-style-type: none"> - GCAP & Policy Dialogue – €300k per city - Annual City Green Cities Networking event – €150k <p><u>SO level</u></p> <p>Pre-signing</p> <ul style="list-style-type: none"> - Feasibility Study; €300k per SO - Audit and restatement of financial accounts; €25k per SO 	<ul style="list-style-type: none"> - Trigger investments TC to formulate GCAPs <p><u>SO level</u></p> <p>Pre-signing</p> <ul style="list-style-type: none"> - Project preparation: to develop an affordable, cost effective and bankable investment programme; including, financial, technical, environmental (eg. energy audits), social, and gender and economic inclusion aspects as appropriate 	<ul style="list-style-type: none"> - Trigger investments TC to formulate GCAPs <p><u>SO level</u></p> <p>Pre-signing</p> <ul style="list-style-type: none"> - to develop affordable, cost effective and bankable investment programmes including, financial, technical, environmental, social, gender and economic inclusion aspects as appropriate. In addition, where applicable,

	<p>Post-signing</p> <ul style="list-style-type: none"> - Gender Advisory Services Programme; €100-300k per SO - Project Implementation Support; €300-500k per SO - Corporate Development, City Support and Stakeholder Participation Programmes; €350k per SO - Civil Society Capacity Building; €75-250k per SO 	<ul style="list-style-type: none"> - Gender Advisory Services Programme; €100-300k per SO <p>Post-signing</p> <ul style="list-style-type: none"> - Technical Assistance and Capacity Building, €350k (<i>per city? Not clear</i>) - Project Implementation Support; €500k per SO - Green Finance Roadmaps, €500k per city - Civil Society Capacity Building; €75-250k (<i>per city? Not clear</i>) 	<p>Post-signing</p> <ul style="list-style-type: none"> - project implementation support; - capacity building support to build the capacity of city administrators and key stakeholders (such as through CDPs and FOPIPs), - promoting economic inclusion, equal economic opportunities for all genders, Just Transition, - civil society and stakeholder engagement capacity building support; - Green Finance Roadmaps 	<p>PPP Advisory support TC will be utilised, in close coordination with the PPP Unit within SI3P</p> <p>Post-signing</p> <ul style="list-style-type: none"> - project implementation support; - capacity building support to build the capacity of city administrators and key stakeholders (such as through CDPs and FOPIPs); - promoting economic inclusion, equal economic opportunities, Just Transition; - civil society and stakeholder engagement capacity building support; - Green Finance Roadmaps if applicable
Non-TC	<p>Some of the sub-projects under the GrCF are envisaged to benefit from non-TC grants by up to one-third of the total project cost</p>	<ul style="list-style-type: none"> - GCF – EBRD Funding Proposal 086 Green Cities Facility¹² (GCF-EBRD FP) (Loans/Grants) - Green City Infrastructure Investment (Grants) - Energy Efficiency and Sustainable Cities in the Neighbourhood - Sida Guarantee Framework ('SGFr') 	<p>As appropriate to address affordability issues, externalities or compensate for the costs of achieving higher standards to deliver transformative climate change mitigation and adaptation outcomes.</p>	<p>As appropriate to address affordability issues, externalities or compensate for the costs of achieving higher standards to deliver transformative climate change mitigation and adaptation outcomes</p>

Annex 2. Detailed Theory of Change



GrCF – Green Cities fwk (2016); GrCF2 – Green Cities second fwk (2018)
GrCF2-1 – first extension of GrCF2 (2020); GrCF2-2 – second extension of GrCF2 (2021)

Annex 3. Evaluation matrix

EVALUATION QUESTION <i>CRITERIA</i>	JUDGMENT CRITERIA AND INDICATORS	METHODS AND SOURCES
<p>To what extent has the GrCP approach been meeting partner city needs and supporting EBRD strategic objectives?</p> <p>RELEVANCE, COHERENCE</p>	<ul style="list-style-type: none"> • Relevance of GrCP strategic objectives and model to EBRD mandate <ul style="list-style-type: none"> - GrCP approach and methodology in line with SCF priorities - GrCP approach and methodology incorporate and mainstream cross-cutting priorities, such as gender and inclusion - GrCP alignment with GET 	<p>Document review</p> <ul style="list-style-type: none"> • GrCF framework project documents (BDS) • GrCF guidelines/ methodology • EBRD strategic documents – SCF, GET, sector strategies & initiatives <p>Case studies</p> <p>Internal interviews</p> <ul style="list-style-type: none"> • GrCP HQ team • EPG
	<ul style="list-style-type: none"> • Relevance of GrCP to partner cities & Coherence with context <ul style="list-style-type: none"> - GrCP approach effectively prioritises action to respond transition challenges - GrCP approach adds value over EBRD stand-alone project approach or Integrated Approach - GCAPs are coherent with existing local strategies and plans, while delivering distinct value added - GrCP approach coherent with cities' level of fiscal decentralisation 	<p>Document review</p> <ul style="list-style-type: none"> • GrCP guidelines/ methodology • GrCF project documents (BDS) – framework & sub-operations • <p>Internal interviews</p> <ul style="list-style-type: none"> • GrCP HQ team • CrCP local/ RO teams • EPG <p>City-level case studies, including inputs from:</p> <ul style="list-style-type: none"> • City officials & city implementing companies • GCAP consultants
	<ul style="list-style-type: none"> • Financial and non-financial additionality <ul style="list-style-type: none"> - Alignment with Enhanced approach to additionality - Non-TC use justified in line with EBRD guidelines - Private sector finance mobilisation actively pursued and delivered 	<p>Document review</p> <ul style="list-style-type: none"> • GrCF project documents (BDS) – framework & sub-operations • Portfolio analysis of PS mobilisation • Non-TC supporting documents

<p>How efficiently has GrCP utilised resources for implementation and delivery of its objectives?</p> <p>EFFICIENCY</p>	<ul style="list-style-type: none"> • Adequate governance of the Programme <ul style="list-style-type: none"> - Efficiency of internal organisation - Use of consultants vs. internal expertise - Programme growth is adequately supported - GCAP process commensurate with local capacity - TC and non-TC mobilisation and utilisation 	<p>Internal interviews</p> <ul style="list-style-type: none"> • GrCP HQ team • GrCP local/ RO teams <p>Case studies</p> <p>Interviews/ surveys</p> <ul style="list-style-type: none"> • City officials & city implementing companies • GCAP consultants
	<ul style="list-style-type: none"> • Timeliness of implementation <ul style="list-style-type: none"> - GrCP is delivered in line with timelines indicated in approval documents - Synergies of processes between investment, TC and non-TC components of the Programme - Procurement issues 	<p>Portfolio analysis, including disbursement of commitments for investments and TCs</p> <p>Interviews</p> <ul style="list-style-type: none"> • GrCP HQ team • GrCP local/ RO teams <p>GCAP monitoring</p>
<p>What progress has GrCP made in delivering its stated objectives and contributing to transition?</p> <p>EFFECTIVENESS</p>	<ul style="list-style-type: none"> • Design & monitoring for results <ul style="list-style-type: none"> - GrCP design is conducive to stated objectives, implicit ToC is well designed - Quality and adequacy of internal (e.g. TIMS) and external (e.g. GCAP) results reporting 	<p>Document review</p> <ul style="list-style-type: none"> • GrCF project documents (BDS) – framework & sub-operations • TIMS • GCAP reporting • Donor/ TC reporting
	<ul style="list-style-type: none"> • Progress made in achieving Green results <ul style="list-style-type: none"> - GCAPs facilitate Green action at city level – adequate methodology for results, prioritisation of action, monitoring setup; share of follow-on investments - Progress on GCAP implementation (progress monitoring), including that not supported by EBRD - Contribution to significant environmental change at City level • Progress made on Well-Governed objectives <ul style="list-style-type: none"> - CDPs and FOPIPs implementation; strengthened contractual and regulatory setup; efficiencies achieved from restructuring - Increased private sector participation, implemented tariff reform, improved fare box ratio - Policy dialogue, policy action supported in public governance, company/ utility level, public-private partnership in identifying city challenges - CSO support/ involvement • Progress made on Resilient objectives <ul style="list-style-type: none"> - Support in developing Green Finance Roadmaps 	<p>City level case studies</p> <p>Desk analysis of GCAP monitoring data available</p> <p>TIMS analysis, other internal results reporting</p>

	<ul style="list-style-type: none"> - Facilitating city access to green finance • Progress on Inclusive objectives <ul style="list-style-type: none"> - Social, gender and other inclusion elements in GCAPs and SOs - CSO support/ involvement • Progress on Competitive objectives <ul style="list-style-type: none"> - Digitalisation and new technologies in GCAPs and SOs - Implementation of PPPs 	
	<ul style="list-style-type: none"> • Learning, networking and knowledge management <ul style="list-style-type: none"> - Feedback from counterparts systematically/ regularly collected and processed - Iterative improvements of the programme based on lessons learned - Networking activities promote effective knowledge management - 	<p>Case studies</p> <p>Interviews/ surveys</p> <ul style="list-style-type: none"> • GrCP team • City officials • GCAP consultants

Annex 4. Portfolio analysis

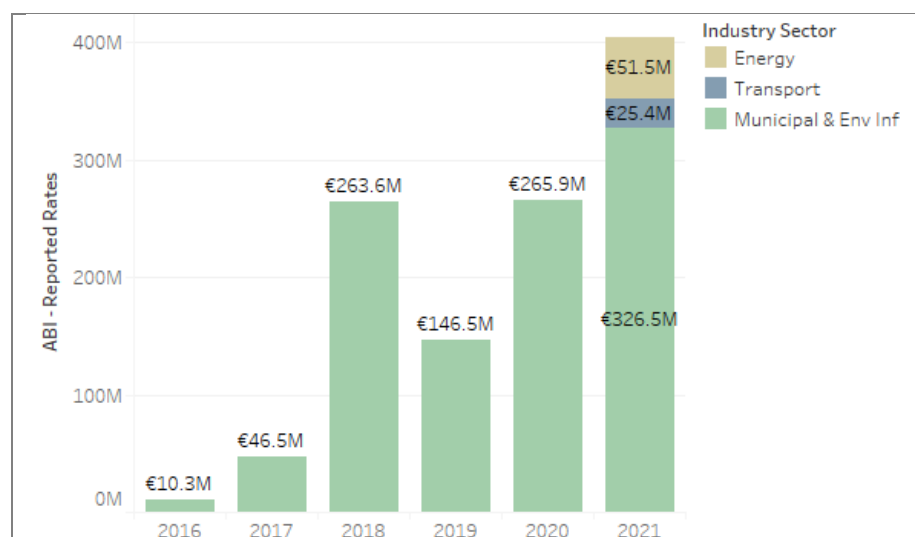
NB: All data in this annex originates from DW_Banking_Operational dataset as available on the EBRD Tableau server at time of preparation of this AP. Analysis by EvD.

Data valid at month end October 2021.

Annual business volumes

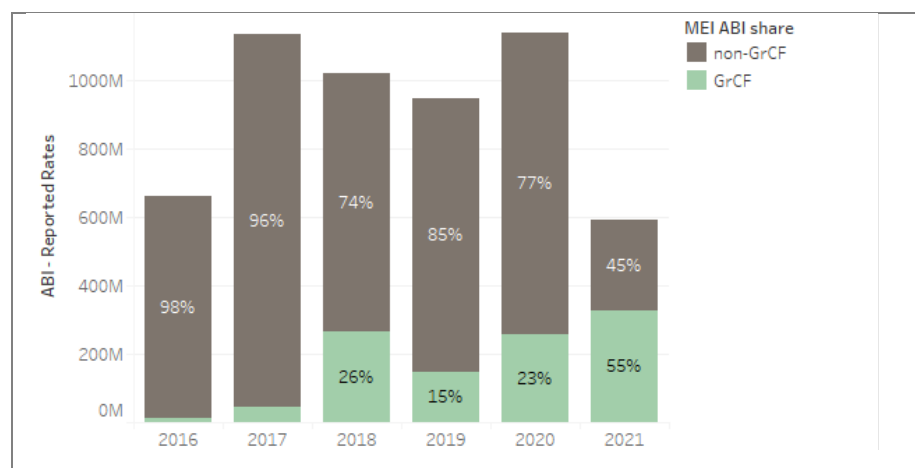
By the end of October 2021, GrCF frameworks reported over €1.14bn of ABI of which over €1bn has been in MEI sub-operations. GrCF operations represent an increasing share of MEI ABI overall. GrCF was approved in November 2016, and the framework generated over €10m ABI before the end of the year with its first SOs. Its first full year ABI in 2017 was over €46m before rising more than five-fold in the following year (€264m). In 2019 the GrCF ABI dropped to €147m and recovered in 2020 to €266m. In 2021 the ABI rose to record volume of over €400m already by the end of October. The majority of SOs and ABI was delivered in MEI sectors, which was the sole contributor until 2021, when Transport and Energy SOs were signed, with one in each project in each sector. In 2018 GrCF operations already represented a quarter of MEI ABI. After a drop in this ratio in 2019 and recovery in 2020, the share of GrCF ABI rose to over half of MEI ABI in 2021.

Figure 5: Green Cities frameworks ABI (2016-2021) at end October 2021



*) 2021 data until ME202110

Figure 6: Green Cities frameworks ABI as a share of MEI ABI (2016-2021) at end October 2021



*) 2021 data until ME202110

Investments

A total of 47 signed projects were identified as sub-operations of the Green Cities frameworks, representing total investment (NCBI) of €1,130m. To date, there have been two GrCF frameworks – GrCF (BA 2016, OpID 48171) and GrCF2 which was split into two implementation Windows with individual OpIDs (BA 2018, 50440 & 50674). Window II of GrCF2 was extended twice, the second extension in November 2021 was under a new OpID (53170). The frameworks represent a volume of investment (NCBI) of €1,130 over 47 signed operations.

In addition to the sub-operations of GrCFs, there were four projects signed, which the team identifies as follow-on Green City investments. These projects outside of GrCFs represent two stand-alone projects (Gyumri Urban Roads, 46540; Chisinau Solid Waste, 47314) and two sub-operations of the Municipal Resilience Refugee Response Framework (48536).²⁵ By the end of October 2021, these four operations represented NCBI of over €31m.

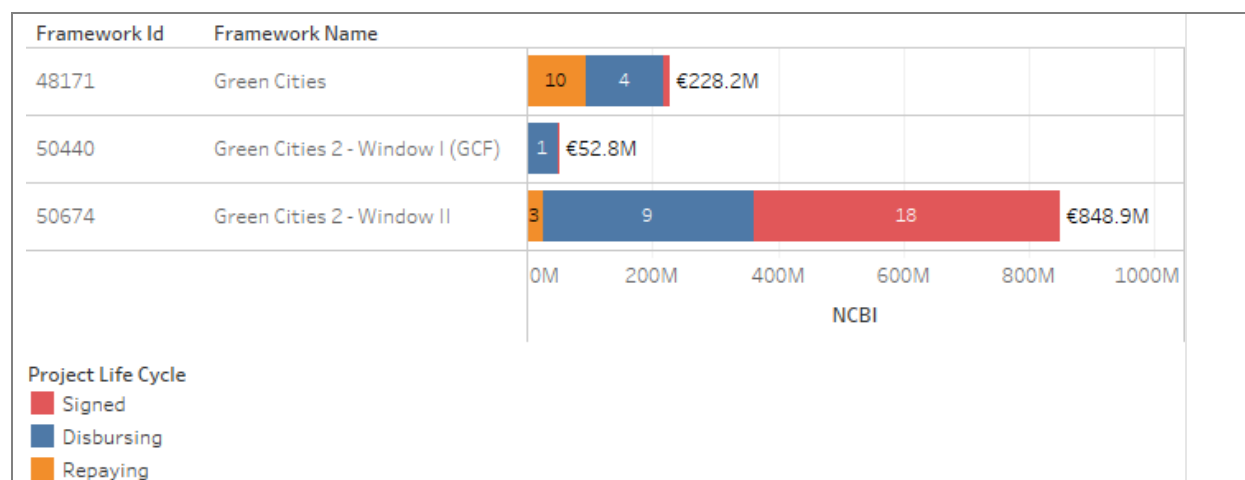
Table 2: Overview of Green Cities frameworks

Op Id	Board Approved	Name	Headroom
48171	2016	Green Cities	€250m
50440	2018	Green Cities 2 - Window I (GCF)	€133m*
50674	2018	Green Cities 2 - Window II	€1,517m**
53170	2021	Green Cities 2 - Window II Extension 2	€2,000m

*) after reallocation from WI to WII in February 2020

**) after reallocation from WI to WII in February 2020, and with first WII extension in October 2020

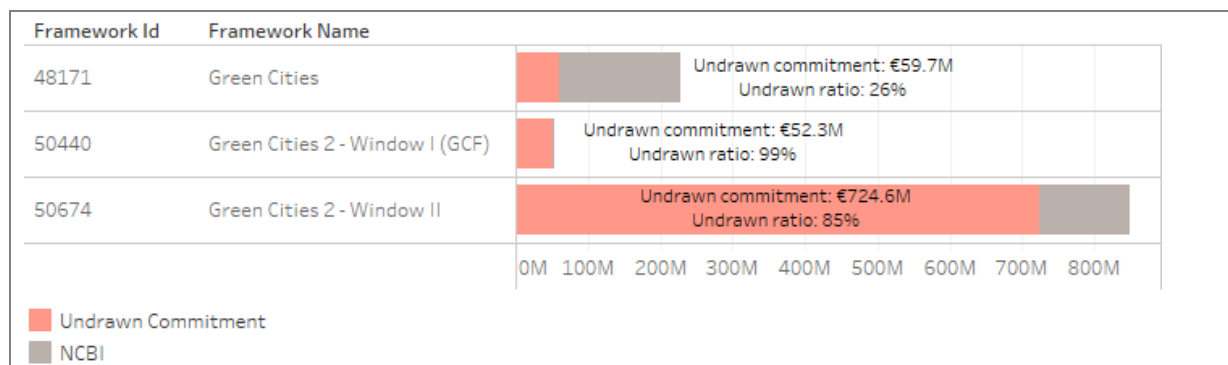
Figure 7: Green Cities frameworks NCBI, number of operations and life cycle stage (2016-2021) at end October 2021



Undrawn commitments of the Green Cities frameworks are at 74% of NCBI. The initial GrCF, which was approved in 2016, has undrawn commitments at 26%. The undrawn commitments of the follow-up framework, GrCF2 approved in 2018, are at 86%, reflecting the relatively high proportion of projects at signed stage before any disbursements.

²⁵ Sub-operations: 50488 GAM Lagoon Remediation Project, and 51044 GAM Solid Waste Crisis Response - Al Shaer WTS, both in Amman, Jordan

Figure 8: Green Cities frameworks undrawn commitments as a share of NCBI (2016-2021) at end October 2021



The largest region of GrCF investment has been Eastern Europe and Caucasus (EEC), assuming almost 37% of GrCFs NCBI, followed by South Eastern Europe (SEE) and Turkey. The largest region of GrCF operations based on NCBI so far has been EEC with almost 37% of investment volume (€414m over 13 projects), followed by SEE with 28% of investment (€316m over 20 projects). Turkey alone represents 23% of investment volume, which came from only three projects. Central Europe (CEB), Central Asia (CAS) and SEMED countries have so far been represented small share of investment (5% or less). There is a strong pipeline of projects (in various stages, from exploratory to Board approved but not yet signed) for all regions except CEB. Notably, there are two pipeline projects in Egypt with potential EBRD investment of €250m each. If all pipeline projects should materialise as they currently stand, SEMED would become the second largest GrCF region in terms of investment volume.

Figure 9: Shares of GrCFs investment (NCBI) in EBRD regions at end October 2021

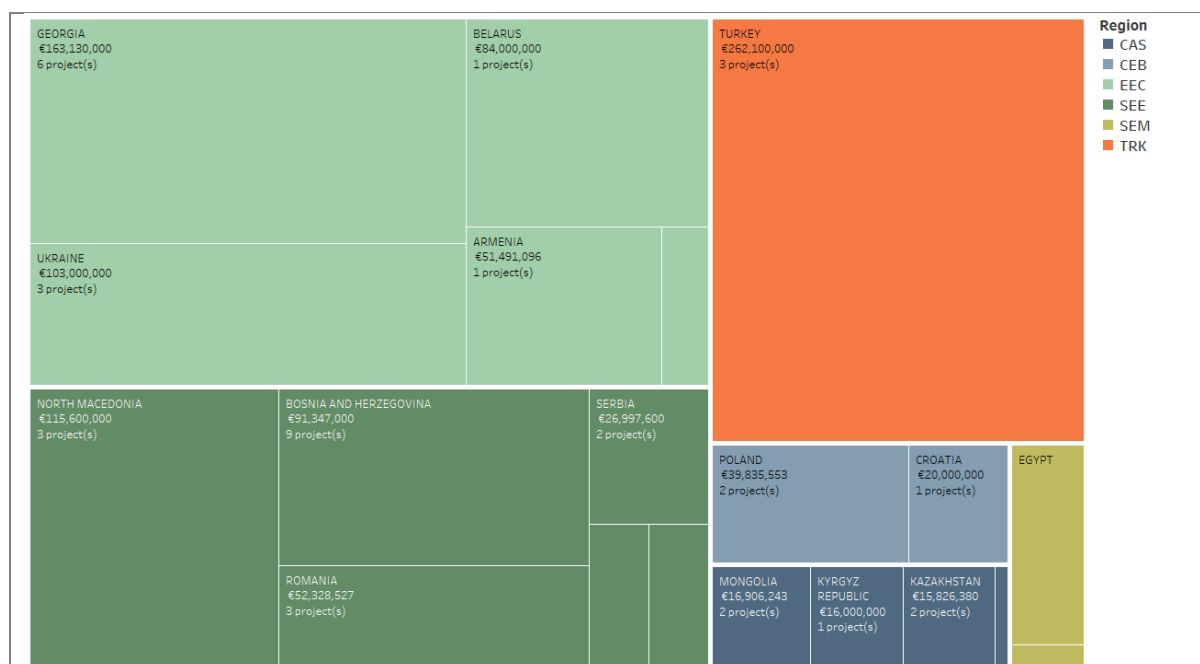
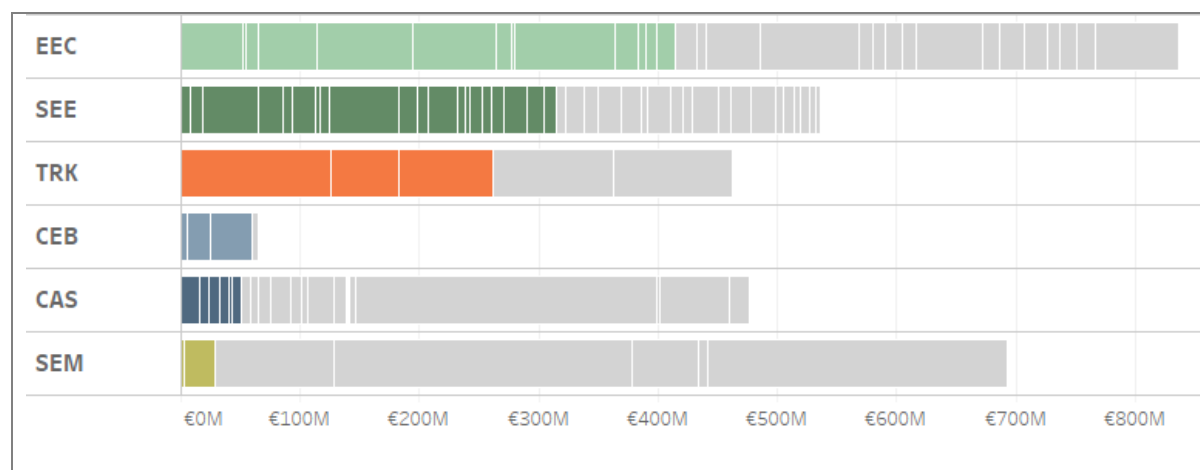


Figure 10: GCFs NCBI and pipeline per region



Note: Projects in pipeline are in grey; pipeline projects are considered Active projects at all life cycle stages before signing

Figure 11: Average size of project (NCBI) per region at end October 2021

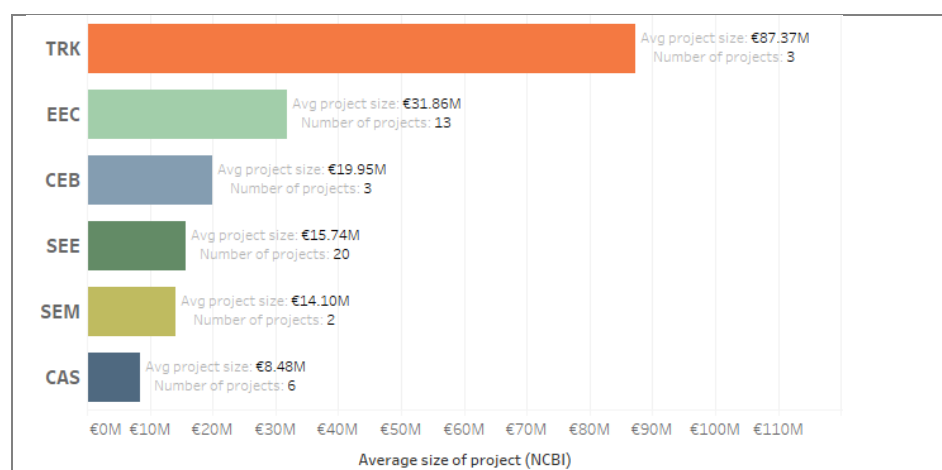


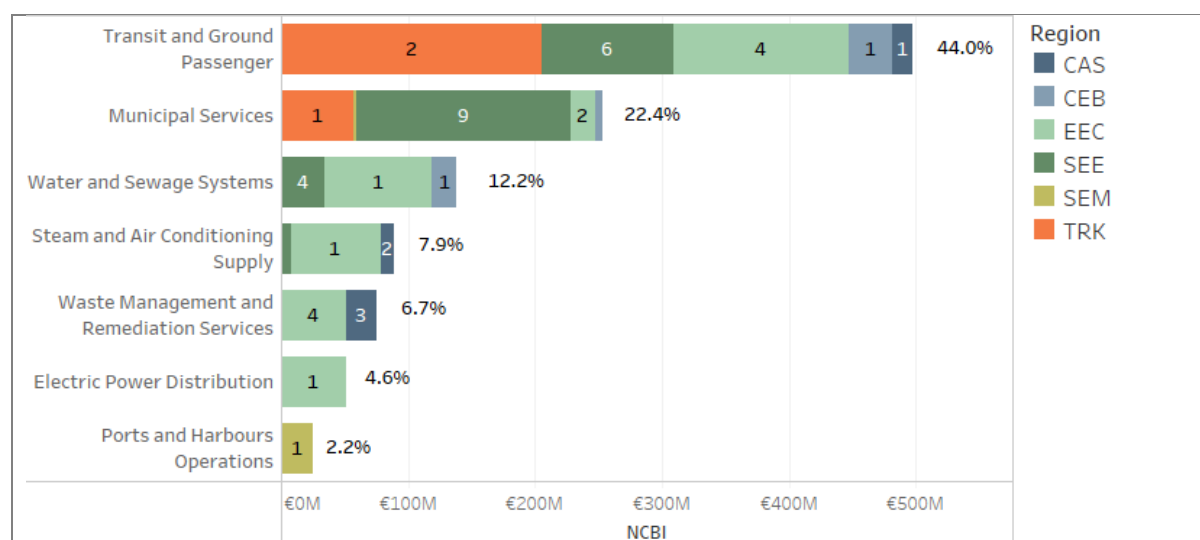
Table 3: NCBI per region and country at end October 2021

	Number of projects	Number of cities	NCBI (€)	Share of NCBI
CENTRAL ASIA	6	5	€ 50,878,085	4.50%
Kazakhstan	2	2	€ 15,826,380	
Kyrgyz Republic	1	1	€ 16,000,000	
Mongolia	2	1	€ 16,906,243	
Tajikistan	1	1	€ 2,145,462	
CENTRAL EUROPE	3	3	€ 59,835,553	5.30%
Croatia	1	1	€ 20,000,000	
Poland	2	2	€ 39,835,553	
EASTERN EUROPE AND CAUCASUS	13	9	€ 414,121,096	36.65%
Armenia	1	1	€ 51,491,096	
Belarus	1	1	€ 84,000,000	
Georgia	6	2	€ 163,130,000	
Moldova	2	2	€ 12,500,000	
Ukraine	3	3	€ 103,000,000	

SOUTH EASTERN EUROPE	20	12	€ 314,810,757	27.86%
Albania	1	1	€ 14,202,015	
Bosnia and Herzegovina	9	3	€ 91,347,000	
Bulgaria	2	2	€ 14,335,615	
North Macedonia	3	1	€ 115,600,000	
Romania	3	3	€ 52,328,527	
Serbia	2	2	€ 26,997,600	
TURKEY	3	2	€ 262,100,000	23.20%
Turkey	3	2	€ 262,100,000	
SEMED	2	2	€ 28,202,274	2.50%
Egypt	1	1	€ 25,402,274	
Jordan	1	1	€ 2,800,000	
TOTAL	47	33	€ 1,129,947,766	100.00%

In terms of sector distribution, GrCF investment has been majority in urban transport, with further pipeline majority concentrated in this sector as well. Currently signed projects' investment (NCBI) of almost €500m in urban transport represents some 44% of total NCBI. There is however a further number of projects which appear misclassified in the Bank's system, including Amman, Skopje and Ankara bus projects,²⁶ which cumulatively represent further €70m NCBI, classified as Municipal Services sector. The existing pipeline points to further concentration of investment in urban transport sector, with notable large pipeline projects including Tbilisi Bus III (€83m, Board approved), Alexandria metro (€250m, Final review), and further €700m of investment in projects having passed concept review (including Cairo metro (€250m), Ankara metro (€100m), Istanbul metro (€100m)). Water and Sewage sector represents some 12% of NCBI; here however as well Skopje wastewater project²⁷ (€58m) is classified as Municipal services – with this addition the Water and Sewage sector would assume 17% of NCBI and represent second largest share of investment.

Figure 12: GrCFs sectors at end October 2021

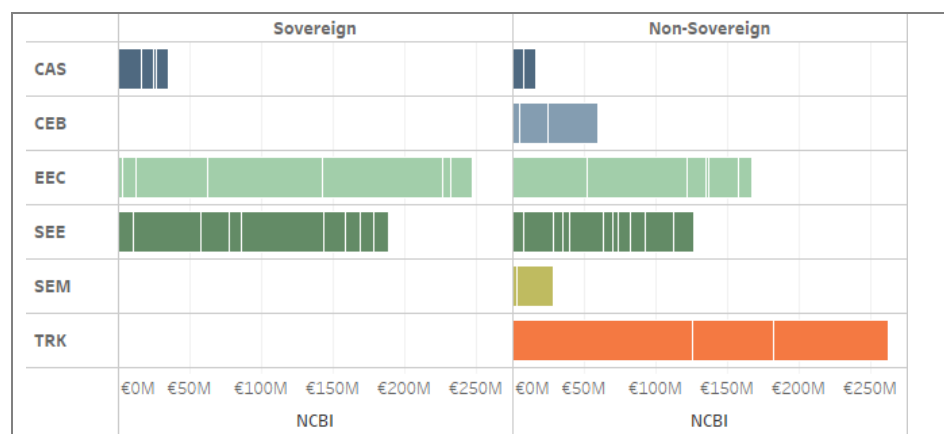


Overwhelming majority of investment (93%) is in the State portfolio, and just over a half (58%) in Non-sovereign risk. All MEI projects are classified as State portfolio; there are two projects in Private portfolio so far, one in Energy and one in Transport. Non-sovereign projects represent majority of investment (58%, €660m). Turkey, SEMED and Central Europe projects are only in non-sovereign risk; there is however a large sovereign pipeline in SEMED.

²⁶ 52505, 50185, 51474

²⁷ 50376

Figure 13: Sovereign and non-sovereign investment per region at end October 2021



Mobilisation

GrCFs reported €150m in Annual Mobilised Investment (AMI), associated with 13 operations. AMI is the volume of commitments from entities other than the Bank made available to the client due to EBRD's direct involvement in mobilising external financing during the year. AMI can include both public and private sources of finance. Out of 13 projects that reported AMI, only three projects reported private sector mobilisation, totalling over €100m through syndication, parallel loan and URP. However, as of 2021 the definition of AMI has changed in line with SCF focus on private mobilisation, and does no longer include donor fund contributions such as GCF or CTF.²⁸

Figure 14: GrCFs Annual mobilised investment at end October 2021

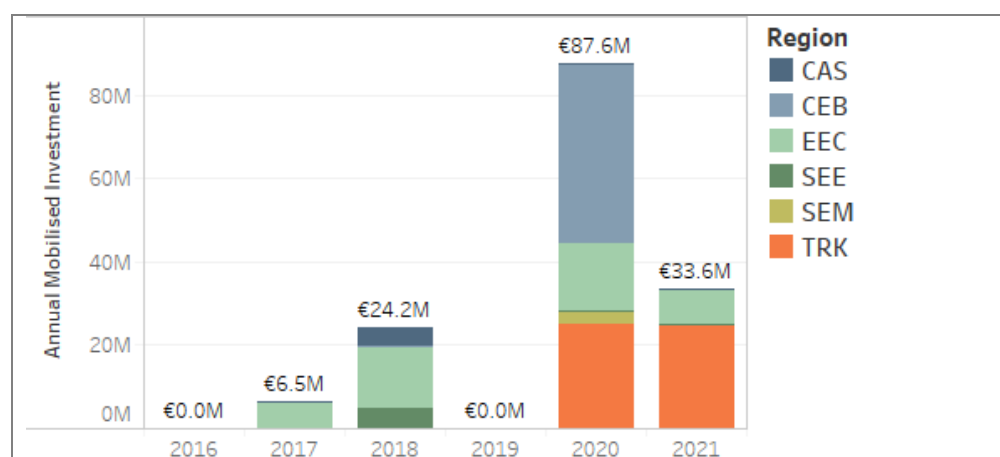


Table 4: Annual mobilised investment per project

Op Id	Operation Name	AMI Type	AMI amount (€)
46581	GrCF Ulaanbaatar Solid Waste Modernisation Project	Grant	4,500,000
47899	GrCF:Chisinau Buildings	Grant	5,000,000
48104	GrCF - Batumi Bus	Grant	1,500,000
48348	GrCF - Izmir Metro Project II	Syndication	25,000,000
		URP	25,000,000
48666	GrCF - Warsaw Metro Line II extension	Parallel loan	42,522,313
49431	GrCF-Energy Efficient Refurbishment of Zenica Hospital	Grant	1,000,000
49437	GrCF - Lviv Solid Waste	Donor funds	5,000,000

²⁸ BDS20-147(Final)

		Grant	10,000,000
49559	GrCF: Sofia Electric Buses Acquisition P	Donor funds	3,675,000
		Donor funds	500,000
50503	GrCF - Balti Trolleybus	Grant	1,200,000
50729	GrCF2 W2 Khmelnytskyi Solid Waste Project	Grant	5,000,000
51392	GrCF2 W1 - Tbilisi Metro Project	Donor funds	10,000,000
52505	GrCF2 W1: Amman Electric Bus Project	Donor funds	2,800,000
52868	GrCF2 W2 - ENA Investment Program	Syndication	8,581,849
TOTAL			151,279,163

Technical cooperation and non-TC grants

The GrCP is associated with relatively high level of TC and non-TC financing. This is due to the specificity of the Programme, whereby the type of TC and non-TC commonly associated with MEI projects is further complemented by TC contributions at city level, most prominently for the development of GCAPs.

The Bank's data systems capturing TCs and non-TCs are less reliable in establishing the exact portfolio of activity relating to a specific programme of framework. However, in November 2021 the Board document for the GrCF2 second extension presented a cumulative overview of TC and non-TC commitments associated with GrCP to date (September 2021), which provided broad information of the volumes related to the main categories. This information is reproduced in Table 5.

Table 5: GrCP donor funding as provided in BDS21-140

Funding type		Total donor funds committed (as of September 2021)	Donor amount mobilised (not committed)
TC	GCAPs	€13.0m	
	Other TC	€28.0m	
Non-TC: Investment Grants and Concessional Loans		€124.5m	
		€165.5m	
Clean Technology Fund (CTF)			€31.6m
Green Climate Fund (GCF)			€73.9m
			€105.5m

The GrCF team provided the evaluation with a disaggregated version of the above data. For the purpose of this evaluation, this commitment-level data was triangulated with existing data systems accessible to evaluation. Some preliminary observations from the data include:

Non-TC

- For non-TC, the above aggregated figure (€124.5m) includes a capital grant of €28m for Varna climate resilience project (49366) financed by the EU directly with the client, i.e. not through EBRD donor systems. Such grants are not commonly reported as EBRD non-TC.
- The aggregated non-TC figure also includes some non-TCs associated with investment operations in 'Green Cities' but outside the Green City Frameworks as such. This corresponds to approximately €25m commitments over four operations.²⁹
- According to the data provided by the team, the €124.5m non-TC commitments corresponded to €31.4m disbursements at time of reporting. This included €24.6m disbursement on the EU grant that was not managed through EBRD systems.

TC

- For GCAP TCs, the €13m commitments corresponded to approximately €7m disbursements at time of reporting.

²⁹ 50488 MR3: GAM Lagoon Remediation Project, 51044 MR3: GAM Solid Waste Crisis Response, 46540 Gyumri Urban Roads Project, 47314 Chisinau Solid Waste

- For transactional TCs (TCs associated with individual investment operations), the €28m commitments corresponded to €10.4m disbursements at time of reporting. As for non-TCs, the transactional TCs include some that are associated with operations outside of the GrC frameworks.
- The evaluation identified a number of further transactional TCs apparently associated with GrCF operations, which were not included in the above aggregated figures. Some of these are likely approved but pre-contract, but some appear to have associated disbursements.

This list of TCs and non-TCs associated with GrCFs will be completed in the course of the evaluation, on best effort basis to the extent feasible within the constraints of the available data systems.

Table 6: List of signed Green Cities operations under Green Cities frameworks, 2016-2021 (ME202110)

Country	City	Op Id	Operation Name	Status	Instrument Type	Sovereign Risk	NCBI (€)	Sector	Industry	Approval date	Signing date
Central Asia											
KAZAKHSTAN	Semey	50142	GrCF2 W2 - Semey Solid Waste Management	Signed	Debt	Non-Sovereign	7,682,514	MEI	Waste Management and Remediation Services	22/12/2020	16/06/2021
	Ust-Kamenogorsk	50141	GrCF2 W2 - Ust-Kamenogorsk Solid Waste Management	Signed	Debt	Non-Sovereign	8,143,866	MEI	Waste Management and Remediation Services	08/06/2021	02/07/2021
KYRGYZ REPUBLIC	Bishkek	51598	GrCF2 W2 - Bishkek Buses	Signed	Debt	Sovereign	16,000,000	MEI	Transit and Ground Passenger	17/11/2020	16/09/2021
MONGOLIA	Ulaanbaatar	46581	GrCF - Ulaanbaatar Solid Waste Modernisation Project	Repaying	Debt	Sovereign	8,324,394	MEI	Waste Management and Remediation Services	18/07/2017	09/05/2018
	Ulaanbaatar	49511	GrCF2 W2 - Ulaanbaatar District Heating Project	Disbursing	Debt	Sovereign	8,581,849	MEI	Steam and Air Conditioning Supply	10/09/2019	10/01/2020
TAJIKISTAN	Dushanbe	49375	GrCF2 W2 - Dushanbe District Heating Project	Signed	Debt	Sovereign	2,145,462	MEI	Steam and Air Conditioning Supply	13/04/2021	14/04/2021
Central Europe and Baltics											
CROATIA	Split	51317	GrCF2 W2 - Split water purification project	Signed	Debt	Non-Sovereign	20,000,000	MEI	Water and Sewage Systems	22/07/2020	23/12/2020
POLAND	Warsaw	48666	GrCF2 W2 - Warsaw Metro Line II extension	Signed	Debt	Non-Sovereign	34,960,383	MEI	Transit and Ground Passenger	28/05/2020	26/11/2020
	Walbrzych	51556	GrCF2 W2 - WALBRZYCH BUILDINGS THERMOMODE	Disbursing	Debt	Non-Sovereign	4,875,170	MEI	Municipal Services	21/10/2020	23/12/2020
Eastern Europe and Caucasus											
ARMENIA	n/a	52868	GrCF2 W2 - ENA Investment Program	Disbursing	Debt	Non-Sovereign	51,491,096	Energy	Electric Power Distribution	14/07/2021	10/08/2021
BELARUS	Minsk	49483	GrCF2 W2 - Minsk VK	Disbursing	Debt	Sovereign	84,000,000	MEI	Water and Sewage Systems	31/10/2018	20/11/2018
GEORGIA	Batumi	48104	GrCF - Batumi Bus	Repaying	Debt	Sovereign	5,500,000	MEI	Transit and Ground Passenger	14/06/2017	13/07/2017
	Tbilisi	47582	GrCF - Tbilisi Solid Waste	Disbursing	Debt	Sovereign	15,000,000	MEI	Waste Management and Remediation Services	11/09/2018	27/11/2018
	Tbilisi	51207	GrCF2 W2 - Tbilisi Bus extension	Disbursing	Debt	Sovereign	80,000,000	MEI	Transit and Ground Passenger	27/11/2019	29/11/2019

	Tbilisi	51392	GrCF2 W1 - Tbilisi Metro Project	Disbursing	Debt	Sovereign	50,000,000	MEI	Transit and Ground Passenger	23/04/2020	29/04/2020
	Tbilisi	52825	GrCF2 W2 - Tbilisi Solid Waste Extension	Signed	Debt	Sovereign	3,030,000	MEI	Waste Management and Remediation Services	22/06/2021	01/07/2021
	Tbilisi	52577	GrCF2 W2 - Tbilisi Municipal Services	Signed	Debt	Sovereign	9,600,000	MEI	Municipal Services	22/06/2021	09/09/2021
MOLDOVA	Chisinau	47899	GrCF - Chisinau Buildings	Repaying	Debt	Non-Sovereign	10,000,000	MEI	Municipal Services	30/11/2016	06/12/2016
	Balti	50503	GrCF - Balti Trolleybus	Repaying	Debt	Non-Sovereign	2,500,000	MEI	Transit and Ground Passenger	19/03/2019	03/06/2019
UKRAINE	Lviv	49437	GrCF - Lviv Solid Waste	Disbursing	Debt	Non-Sovereign	20,000,000	MEI	Waste Management and Remediation Services	29/05/2018	01/06/2018
	Khmelnitsky	50729	GrCF2 W2 - Khmelnytskyi Solid Waste Project	Signed	Debt	Non-Sovereign	13,000,000	MEI	Waste Management and Remediation Services	02/09/2020	07/10/2020
	Kyiv	50839	GrCF2 W2 - Kyiv District Heating	Signed	Debt	Non-Sovereign	70,000,000	MEI	Steam and Air Conditioning Supply	21/07/2021	02/09/2021
South Eastern Europe											
ALBANIA	Tirana	49161	GrCF - UKT Tirana Water Company	Repaying	Debt	Non-Sovereign	14,202,015	MEI	Water and Sewage Systems	14/02/2018	19/03/2018
BOSNIA AND HERZEGOVINA	Sarajevo	48252	GrCF - Sarajevo Water	Repaying	Debt	Sovereign	10,000,000	MEI	Water and Sewage Systems	11/04/2017	11/05/2017
	Banja Luka	49407	GrCF - Banja Luka District Heating	Repaying	Debt	Non-Sovereign	8,347,000	MEI	Steam and Air Conditioning Supply	24/10/2017	13/11/2017
	Zenica	49431	GrCF - Energy Efficient Refurbishment of Zenica Hospital	Signed	Debt	Sovereign	10,000,000	MEI	Municipal Services	09/01/2018	27/06/2018
	Sarajevo	50246	GrCF2 W2 - Sarajevo Public Transport Project	Repaying	Debt	Sovereign	15,000,000	MEI	Transit and Ground Passenger	23/07/2019	05/02/2020
	Banja Luka	51214	GrCF2 W2 - Banja Luka Water - Phase 1	Repaying	Debt	Non-Sovereign	4,000,000	MEI	Water and Sewage Systems	03/09/2019	13/09/2019
	Sarajevo	51294	GrCF2 W2 - Sarajevo Public Transport Part 2	Disbursing	Debt	Sovereign	20,000,000	MEI	Transit and Ground Passenger	08/10/2019	05/02/2020
	Sarajevo	51113	GrCF2 W2 - Sarajevo Public Buildings	Signed	Debt	Sovereign	8,000,000	MEI	Municipal Services	08/10/2019	29/07/2020
	Sarajevo	51784	GrCF2 W2 - Sarajevo Public Transport Part 3	Signed	Debt	Sovereign	10,000,000	MEI	Transit and Ground Passenger	21/07/2020	29/10/2020

	Banja Luka	49668	GrCF2 W2 - Banja Luka Water - Phase 2	Disbursing	Debt	Non-Sovereign	6,000,000	MEI	Water and Sewage Systems	02/09/2020	04/09/2020
BULGARIA	Varna	49366	GrCF - Varna Climate Resilience Infra Project	Repaying	Debt	Non-Sovereign	10,160,615	MEI	Municipal Services	12/12/2017	28/03/2018
	Sofia	49559	GrCF - Sofia Electric Buses Acquisition P	Repaying	Debt	Non-Sovereign	4,175,000	MEI	Transit and Ground Passenger	24/07/2018	15/10/2018
NORTH MACEDONIA	Skopje	50185	GrCF - Skopje Bus project	Disbursing	Debt	Sovereign	10,000,000	MEI	Municipal Services	23/10/2018	28/01/2019
	Skopje	50376	GrCF2 W2 - Skopje Wastewater Project	Signed	Debt	Sovereign	58,000,000	MEI	Municipal Services	27/11/2019	20/12/2019
	Skopje	51752	GrCF2 W2 - Skopje Bus Rapid Transit Project	Signed	Debt	Sovereign	47,600,000	MEI	Transit and Ground Passenger	18/11/2020	21/04/2021
ROMANIA	Craiova	50083	GrCF2 W2 - Craiova Urban Rehabilitation	Disbursing	Debt	Non-Sovereign	24,200,000	MEI	Municipal Services	13/11/2018	04/12/2018
	Iasi	51703	GrCF2 W2 - Iasi Green Buildings	Signed	Debt	Non-Sovereign	20,449,898	MEI	Municipal Services	27/07/2021	21/10/2021
	Medias	52456	GrCF2 W2 - Medias Infrastructure Loan	Signed	Debt	Non-Sovereign	7,678,629	MEI	Municipal Services	08/09/2021	04/10/2021
SERBIA	Belgrade	49267	GrCF - Belgrade Green Boulevard	Repaying	Debt	Non-Sovereign	20,000,000	MEI	Municipal Services	20/06/2017	11/07/2017
	Novi Sad	51441	GrCF2 W2 - Novi Sad Bus Fleet Renewal	Repaying	Debt	Non-Sovereign	6,997,600	MEI	Transit and Ground Passenger	10/12/2019	31/12/2019
SEMED											
EGYPT	6th October	51830	GrCF2 W2 - Project Goose	Signed	Debt	Non-Sovereign	25,402,274	Transport	Ports and Harbours Operations	02/07/2021	09/09/2021
JORDAN	Amman	52505	GrCF2 W1: Amman Electric Bus Project	Signed	Debt	Non-Sovereign	2,800,000	MEI	Municipal Services	15/12/2020	31/12/2020
Turkey											
TURKEY	Izmir	48348	GrCF - Izmir Metro Project II	Disbursing	Debt	Non-Sovereign	80,000,000	MEI	Transit and Ground Passenger	23/05/2018	08/06/2018
	Ankara	51474	GrCF2 W2 - Ankara Bus Project	Disbursing	Debt	Non-Sovereign	57,100,000	MEI	Municipal Services	02/12/2020	07/12/2020
	Izmir	51599	GrCF2 W2 - Izmir Metro Project III	Signed	Debt	Non-Sovereign	125,000,000	MEI	Transit and Ground Passenger	28/04/2021	28/07/2021

Annex 5. Previous relevant evaluations

EvD has in recent years conducted evaluations with scope fully or partially relevant to the activities and objectives of the Green Cities programme. This section summarises their findings in relation with relevance to the current evaluation.

The evaluation of **Private sector participation (PSP) in MEI**³⁰ in 2014 covered the period of 2001-2012. It found a gradual loss of status of PSP as a strategic priority over the period in the Bank's MEI approach, whereby disappointing results from specific PSP initiatives reduced the Bank's ambition and operations with a PSP dimension became limited, cautious and highly selective. Integration of private sector components into MEI's public sector operations subsequently dropped significantly and remained low. The Bank's approach was largely to wait for opportunities to emerge rather than trying to pro-actively influence the market to create them. The evaluation also found that in the later years of the evaluation period the opportunities for PSP projects deteriorated due to the combined effects of EU grants in the more advanced countries and the lack of adequate PPP legislation in the less advanced countries. With respect to the EU grants, the ambiguity as to the eligibility of private projects to benefit from such grants co-financing convinced many cities to give up on plans involving private ownership or operations of their assets or services in favour of public options.

The evaluation of **Almaty Urban transport Integrated Approach**³¹ (2016) evaluated the IA's objective of representing a coordinated sequence of investment projects, TC and policy dialogue aiming to deliver measurable sector reforms and contribute to addressing important transition challenges. It found that there was a marked over-reliance on TCs for the delivery of transition impact (TI). It recommended that in such cases the expected contributions to TI from different operational components should be specifically identified to provide clarity as well as better risk assessment, management, monitoring and reporting, especially when large part of the TI derives from a TC provided by consultants. The evaluation was also unable to ascertain the extent of policy dialogue that had taken place, despite policy dialogue being central to the IA. It recommended that a systematic approach should be provided at approval, with a clear identification of problems to be addressed, actions, and objectives to be reached. On the positive side, the evaluation found that the IA approach helped the Bank proactively contribute to the inclusion agenda and identify measures to promote equal opportunities in the sector and reduce gender gaps.

The evaluation of EBRD's **Health-focused interventions**³² (2021) found that the some operations were not in line with the Bank's Updated approach to projects in healthcare services (WS14-02). The Approach enjoins against involvement in public hospitals, but some operations have been found to contravene this – including the Green Cities sub-operation for Energy Efficient Refurbishment of Zenica Hospital in Bosnia and Herzegovina (49431).

The evaluation of **Sustainable Infrastructure operations in Advanced Transition Countries** (2021) found that the operationalisation of TQ Green through physical indicators inherent in physical completion of projects represented potential for renewed transition relevance even in advanced countries. This however also raises questions about the Bank's representation of its contribution to these results, especially in projects where the Bank's finance represents only small part of the overall financing package, as is often the case in municipal infrastructure projects. In municipal infrastructure projects that were part of the evaluation (Croatia) the client-level results in institutional strengthening and formalisation of contractual arrangements were often achieved, while the objectives at sector reform level and in tariff reform were not achieved. While the Bank was ready to support the water sector reform in the consolidation of utilities, it did not have sufficient political clout to enable the reform without the necessary political will in place.

³⁰ CS/AU/14-11: EvD Special Study: Private Sector Participation in Municipal and Environmental Infrastructure Projects – Review and Evaluation

³¹ CS/AU/16-37: Evaluation Department: Almaty Urban Transport Integrated Approach (Kazakhstan)

³² CS/AU/21-31: EvD Special Study: EBRD's Health-focused Interventions