Global trends and Local challenges

Varying population changes
Energy security
Scarce resources

Infrastructural demands
Life quality
Climate change mitigation & adaptation
**A Warming World**

**Impacts**

**Frequency of extreme weather events**
- Hydrological events (floods): quadrupled since 1980
- Droughts and forest fires: more than doubled since 1980
- Meteorological events (storms): doubled since 1980

**Financial cost (2018)**
- $100 billion globally
- California wildfires: $13 billion

**Human cost (2018)**
- 5,000 deaths
- 29 million in need of emergency assistance and humanitarian aid

2017 was the second hottest year since 1880

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Global warming relative to 1850-1900 (°C)

**Source:** NASA

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**Likely range of modeled responses to stylized pathways**
- Global CO₂ emissions reach net zero in 2055 while net non-CO₂ radiative forcing is reduced after 2030 (grey in b, c & d)
- Faster CO₂ reductions (blue in b & c) result in a higher probability of limiting warming to 1.5°C
- No reduction of net non-CO₂ radiative forcing (purple in d) results in a lower probability of limiting warming to 1.5°C
Global Impact of Cities

Cities account for:

- GHG emissions: 70%
- Energy consumption: 75%
- GDP: 80%
- Land Use: 1%

2017 Urban population %: 55% of 7.2 billion people

2050 Urban population %: 68% of 9.7 billion people

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EBRD Green Cities

**€1 billion framework** to support cities to identify, benchmark, prioritise and invest in Green City measures to improve urban environmental performance through:

- Delivery of strategy and policy support
  - Green City Action Plans (GCAP)
  - Policy dialogue

- Facilitating and stimulating Green City infrastructure investments
  - Urban Transport
  - District Energy
  - Solid Waste
  - Renewable Energy
  - Water & Wastewater
  - Building Energy Efficiency
  - Street Lighting
  - Climate Change Resilience

- Building capacity of city administrators and key stakeholders
In order to become a part of EBRD Green Cities, cities must meet the following criteria:

1. Located in EBRD’s Countries of Operation
2. Population ≥ 100,000
3. Conduct a Green City Action Plan
4. Initiate ‘Trigger’ Infrastructure Project

In one of the following sectors:
- Solid Waste
- Water & Wastewater
- Urban Transport
- District Heating
- Public Building Energy Efficiency
- Renewable Energy
- Climate Change Resilience
- Street Lighting

5. Projects must target a 20% reduction in GHG emissions, energy or resource consumption, or pollution
Green investments & policy support

Example

Tbilisi Buses
Tbilisi GCAP
Tbilisi Solid Waste
Tbilisi CNG Buses
Tbilisi Electric Buses

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GCAPs: a Systematic Approach to Investments

Indicative Investments
5 Years

Mid-term Targets
10 Years

Long-term Visions
15 Years
# GCAPs – a systematic approach

## Initial Policy Review

<table>
<thead>
<tr>
<th>Month</th>
<th>Baseline Assessment</th>
<th>Climate Change Priorities</th>
<th>Visions &amp; Indicative Actions</th>
<th>Green City Action Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>35 indicators</td>
<td>Agree which indicators identify the priority climate change challenges</td>
<td>Articulate a city’s future development goals and select measures to address challenges and realise visions</td>
<td>Formal approval affirming local commitment to implement and secure resources for GCAP</td>
</tr>
</tbody>
</table>

**Note:**
- **Baseline Assessment:** Baseline assessment of climate performance
- **Climate Change Priorities:** Agree which indicators identify the priority climate change challenges
- **Visions & Indicative Actions:** Articulate a city’s future development goals and select measures to address challenges and realise visions
- **Green City Action Plan:** Formal approval affirming local commitment to implement and secure resources for GCAP

**Resources:**
- [www.ebrdgencities.com](http://www.ebrdgencities.com)
- @EBRD
- #EBRDgreen
- #EBRDGreenCities

**Date:** 16 October, 2019
Green City Infrastructure Investments

Financing Options

- Sovereign-backed loans (Central Government)
- Municipal loans or utility loans guaranteed by municipality (Municipality)
- Quasi corporate utility loans (Utility Company)
- Loans to PPP/private companies (Private Company)

Investment Size

€ 2 million to € 150 million
Ex: Batumi Bus, Georgia

EBRD Finance € 5.5 million

Supporting the City of Batumi to improve and modernise bus operations through the purchase of a new bus fleet of 10 electric and 20 diesel buses.

• First electric bus project for the Bank
• GCAP preparation
• Procurement support
• Corporate development and stakeholder participation programmes

Supported by an E5P grant of € 1.5 million
Ex: Chisinau Public Buildings, Moldova

Supporting the City of Chisinau in the renovation of up to 120 buildings, covering kindergartens, schools and hospitals.

- GCAP covenanted
- Utilising Energy Performance Contracts where savings will offset costs
- 2nd public buildings investment for EBRD

Supported by an E5P grant of € 5 million & EIB co-financing of € 10 million

EBRD Finance € 10 million

GHG Reduced 4,000 ton CO₂ eq / yr
Ex: Varna Climate Resilience Infra Project, Bulgaria

EBRD Finance € 10.16 million

Supporting the City of Varna for urban infrastructure upgrade, including roads, parking zone and electric vehicle charging stations

• GCAP preparation
• Upgrade will increase roads’ flood resilience and reduce air pollution.
• All investments will have a positive environmental effect including by employing EU standards, reducing pollution and greenhouse gas emissions or improving resource efficiency
Ex: Izmir Metro Project II, Turkey

EBRD Finance € 80 million
GHG Reduced 16,500 ton CO₂ eq / yr

7.2km extension to the existing 19km Light Rail Transit system and the construction of seven new stations.

• Reduce motorisation and congestion, air and noise pollution, and traffic accidents.
• Enhance the interconnectivity of the existing metro system with the commuter rail system (“IZBAN”) to increase access from suburban areas to the centre of the City.
Public Outreach
GCAPs hold at least 3 stakeholder workshops at key milestones to ensure the outputs reflect the city’s and its citizens’ visions.

Stakeholder include:

Local city officials
CSOs
Utility companies
Universities
International organisations
Community groups
Since Nov 2016, under EBRD Green Cities:

- **32 cities** have joined EBRD Green Cities
- **€350 million** invested in sustainable infrastructure
- **€1 billion** in EBRD & donor finance mobilised
- **372 k tonnes CO₂ reduced** = **80,000 cars**
Green Cities

- 3 GCAPs adopted
- 17 GCAPs underway
- 1 GCAPs in procurement
- 11 GCAPs planned

(As of 10 Sept 2019)
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