EBRD
CLIMATE FINANCE
GLOBAL PARTNERSHIPS

European Bank
for Reconstruction and Development

Accelerating the response to climate change

CLIMATE
INVESTMENT
FUNDS

gef

LEADING THE RESPONSE **TO CLIMATE CHANGE**

Climate change hinders development

People, businesses and governments in countries where the EBRD invests continue to face economic, environmental and social risks brought on by climate change, wasted energy and water scarcity. Despite recent improvements, energy intensity in the EBRD region remains on average three times higher than in the European Union. The region is also vulnerable to the effects of climate change, such as droughts and floods.

Recognising that inefficient use of energy is a major barrier to transition progress, the EBRD launched its **Sustainable Energy Initiative (SEI)** in 2006. The initiative is an effective business model for increasing the financing of projects in energy efficiency, renewable energy and adaptation to climate change, in close cooperation with governments and the private sector.

A unique business model

The Bank combines its commercial project financing with grant co-financing, concessional funds from donors and technical cooperation (TC). These resources ensure the successful implementation of projects. As a trusted partner in the countries where it works, the Bank helps break down investment barriers by engaging in policy dialogue with stakeholders and promoting reforms to encourage sustainable growth.

Crucial donor support

In 2013, nearly US$ 52 million[1] of TC and US$ 138 million of grant co-financing supported these essential activities. Donor funding enables policy dialogue efforts and develops local capacity for successful preparation and implementation of EBRD investments.

Faster scale-up through partnerships

One of the ways in which the EBRD extends sustainable energy financing is through its Sustainable Energy Financing Facilities (SEFFs). These financing mechanisms scale up energy-saving potential and build expertise by extending credit lines to financial institutions for on-lending to their clients. The Bank provides expert guidance on the design of lending products and assesses opportunities to turn sustainable energy projects into sound investments. As a result, long-term, sustainable, and mainstream solutions are taking root , reaching a web of local, and often small, clients.

Looking ahead

In 2013, the EBRD approved the Sustainable Resource Initiative (SRI), to further address key sustainability issues while enhancing business competitiveness. This umbrella initiative builds on the experience of the SEI to promote the efficient use of materials and water, particularly in the water-scarce southern and eastern Mediterranean (SEMED) region. Moving from pilot stage to full-scale implementation, the SRI will extend the successful incorporation of sustainable energy work into the full spectrum of Bank activities.

Making a difference

The EBRD's experience to date demonstrates that mitigation and adaptation measures can be cost-effective, reduce production costs, boost competitiveness, support energy security and lower greenhouse gas emissions. Since 2006, the EBRD has invested over US$ 19 billion in sustainable energy projects, with estimated annual reductions during this period of over 66 million tonnes of carbon dioxide (CO_2).

[1] Unless otherwise specified, all figures are shown in US$ at the average 2013 exchange rate of US$ 1.33 = €1.

SEI OBJECTIVES

- **Increase energy efficiency** and renewable energy investments
- **Develop financing instruments** to support and leverage private sector investment in sustainable energy
- **Improve the business environment** for investments through policy dialogue, regulatory reform and capacity-building
- **Work closely with donors** to develop measures for overcoming barriers to energy efficiency
- **Mainstream sustainable energy** across the corporate, financial institution, municipal and large-scale infrastructure sectors
- **Provide finance and technical expertise** to promote climate-resilient technologies and practices, and to support strategies for managing the impact of climate change.

MAINSTREAMING SUSTAINABLE ENERGY THROUGH CLIMATE FINANCE PARTNERSHIPS

CLIMATE INVESTMENT FUNDS

The Climate Investment Funds (CIF) seek to attract investments that will stimulate market transformation and foster partnerships through country-led programmes. Established in 2008, the CIFs include four key programmes that help 48 developing countries pilot low emissions and climate resilient development. The financing is disbursed through multilateral development banks (MDBs) to support effective, flexible implementation of national and regional programmes. The EBRD is active in the following programmes and countries.

CLEAN TECHNOLOGY FUND (CTF)

This fund focuses on middle-income countries with sufficient resources to scale up and implement low-carbon clean technologies. CTF support has enabled projects in Kazakhstan, Turkey and Ukraine.

PILOT PROGRAMME FOR CLIMATE RESILIENCE (PPCR)

This programme helps low-income and highly vulnerable countries to integrate climate risk and resilience into their development planning and implementation. Ongoing preparatory PPCR work in Tajikistan is expected to support future EBRD projects.

SCALING UP RENEWABLE ENERGY PROGRAMME (SREP) IN LOW-INCOME COUNTRIES

This CIF programme expands renewable energy markets and the deployment of renewable energy in the world's poorest countries. Armenia and Mongolia are preparing to become SREP pilot countries.

www.climateinvestmentfunds.org/cif

Global donor partnerships have been instrumental in mainstreaming climate finance across the EBRD's operations.

Responding to calls for cleaner energy

The EBRD has responded to calls from donors and civil society groups to finance clean energy projects by participating in multi-donor funds such as the Climate Investment Funds (CIF) and the Global Environment Facility (GEF). These funds seek to leverage global climate finance through information sharing, technology transfer, advisory support and concessional funding and further commercial co-financing.

Extending the reach of climate financing

The partnership between the EBRD and climate finance funds has enabled the Bank to extend its reach beyond energy efficiency and its core renewable energy activities, while also developing innovative products in the area of climate change adaptation and climate technology transfer.

Overcoming problems of affordability

By blending EBRD commercial financing with CIF and GEF grant and concessional loan co-financing, the Bank can accelerate the implementation of projects with important environmental and economic impacts, that would otherwise struggle to secure commercial financing. These lower-cost blended loan packages have reduced financing costs for developers. In addition, the longer tenors and grace periods create a better alignment between the financing tenor and the payback period of a project.

Kick-starting sustainable energy projects in emerging economies

Many countries in the EBRD region have little experience of implementing sustainable energy projects. Targeted efforts are needed to develop appropriate regulatory frameworks and first-time demonstration projects that pave the way for larger-scale adoption as the market matures.

Expediting the scale-up of projects

Donor co-financing via the CIF and the GEF enables the Bank to build on its model, leverage donor resources and implement more projects at a faster rate, whether through direct lending facilities or partner institutions.

Supporting projects and policy dialogue

In countries with nascent sustainable energy markets, funding from these donors is crucial and enables the EBRD to undertake policy dialogue activities. These cover legislation, regulation and procedures that create an appropriate investment environment. In addition, these funds provide technical cooperation support that promotes market development, builds developer and lender capacity, and ensures the successful development and implementation of projects.

> **Climate finance** refers to local, national or transnational financing that may be drawn from public, private and other sources of financing, to fund investment in clean energy production, energy efficiency and increased resilience to the effects of climate change.

GLOBAL ENVIRONMENT FACILITY

The Global Environment Facility (GEF) was established in 1991 as a pilot programme to promote environmental and sustainable development, and to cover the incremental costs of introducing global environmental benefits to local and regional projects.

The facility provides grants for projects in the following areas: biodiversity, climate change, international waters, land degradation, waste, chemical pollutants and adaptation to climate change.

The EBRD, as one of the GEF implementing agencies, has been receiving project-specific technical cooperation, project preparation grants and grant co-financing through the GEF since 2004. These have been used for the development and implementation of investments in areas such as climate change mitigation and adaptation, and international waters.

www.thegef.org

THE EBRD AND THE **CLIMATE INVESTMENT FUNDS**

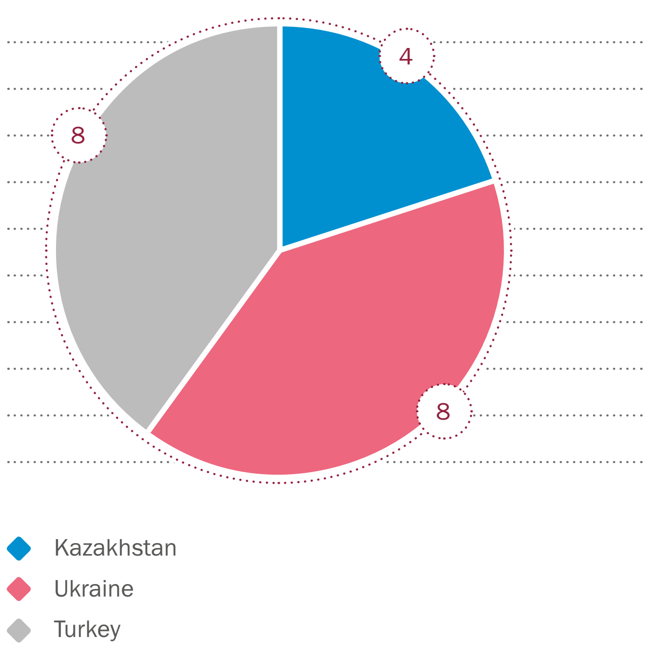
US$ 483 million approved by CIF for EBRD investments

- US$ 483 million approved by the CIF Investment Plans for the EBRD, largely for concessional finance that provides more attractive pricing and longer tenors to stimulate market development.
- US$ 224 million of CTF funding has been approved by the EBRD to support 22 projects – in Kazakhstan, Turkey and Ukraine –of which US$ 130 million (58 per cent) have now been signed.*
- US$ 26 million of Pilot Programme for Climate Resilience funds have enabled the EBRD to launch innovative approaches to building commercially viable projects – from large-scale hydropower to small-scale finance for businesses.
- Projects cover a wide array of sustainable energy solutions such as district heating, energy efficiency, renewables, waste processing, resilience measures for large-scale hydropower plants, and financing for resilience through financial institutions.
- EBRD-signed projects have leveraged US$ 633 million in additional investment from the EBRD, other lenders and project sponsors.

* Exchange rate used: US$ 1.35 = €1. The three CTF partner projects in Turkey represent financing facilities with five partner institutions, which have provided loans to 370 projects in the commercial and residential sectors.

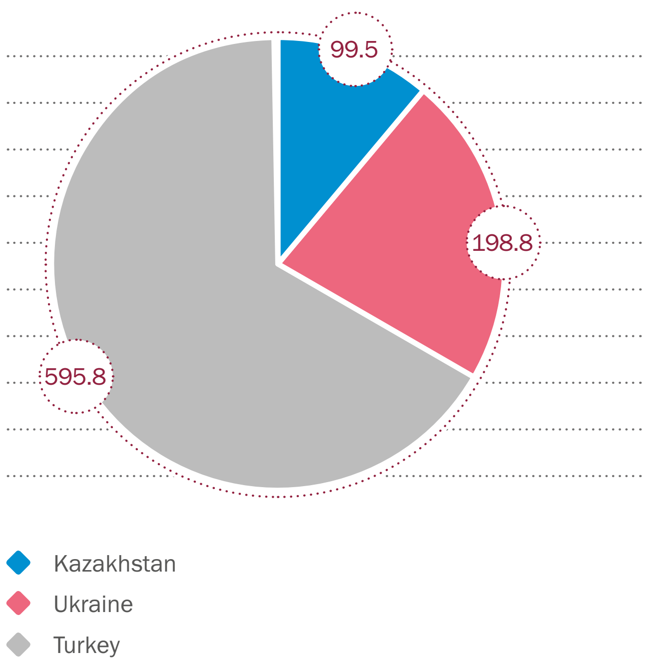
Approved EBRD-CTF projects

by country and number of projects



EBRD-CTF project signings

Co-financing volumes realised by country (US$ million)



THE EBRD AND THE **GLOBAL ENVIRONMENT FACILITY**

- The GEF has contributed just over US$ 80 million to support TC assignments for climate mitigation and adaptation activities. These include policy dialogue and regulatory reform, technology transfer, and support for project preparation and implementation such as capacity-building among local stakeholders, feasibility and market studies, and environmental audits.
- Countries of focus are Kazakhstan, Russia, and Ukraine and early transition countries, in particular the Kyrgyz Republic and Tajikistan.
- Areas of focus include energy efficiency in public buildings, renewables, pollution abatement, the green economy and green shipping.
- The GEF SCCF has approved US$ 10 million for EBRD work to promote climate resilience. This includes making water supplies climate-resilient in the Kyrgyz Republic and Tajikistan.
- The GEF also supports the Finance and Technology Transfer Centre for Climate Change (FINTECC), which provides backing for EBRD clients across the region as they introduce innovative technologies to reduce greenhouse gas emissions or water consumption.

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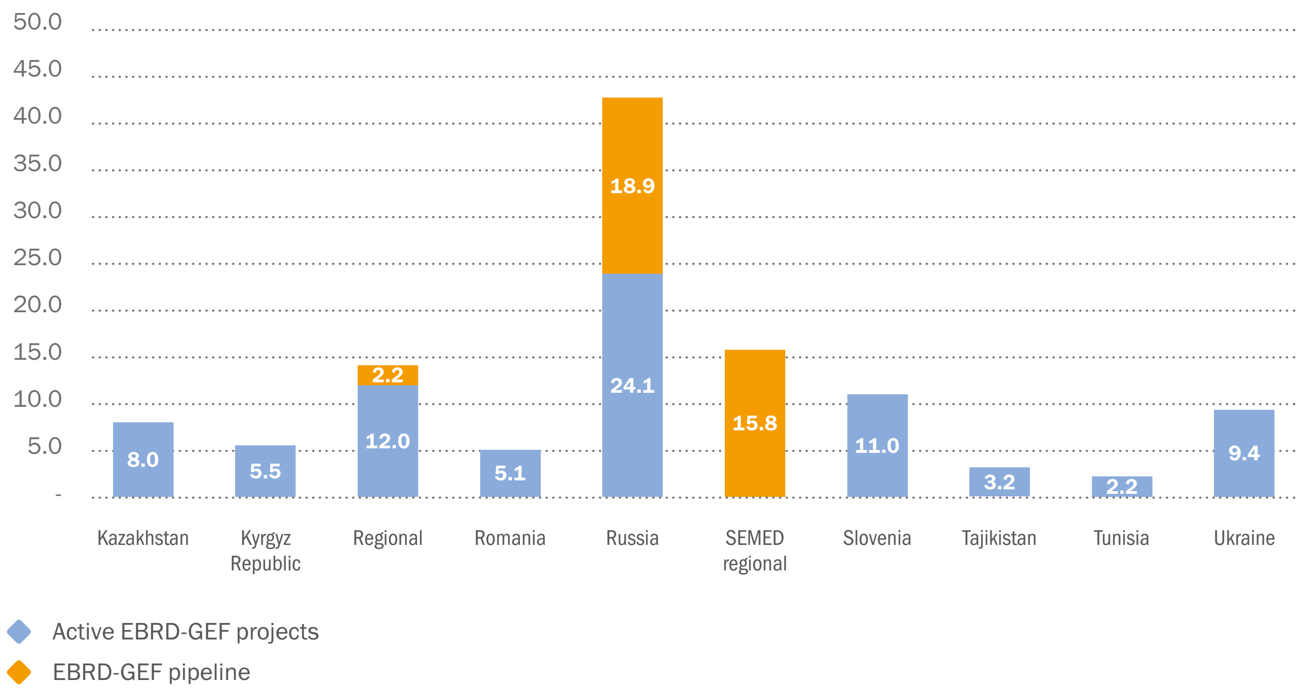
EBRD-GEF

Active and pipeline projects (US$ million)



SCALING UP ACTIVITIES WITH FINANCIAL INSTITUTIONS: **TURKEY SUSTAINABLE ENERGY FACILITY**

TurSEFF

The establishment of the Turkey Sustainable Energy Facility (TurSEFF) in 2010 spearheaded the EBRD entry into the country's sustainable energy market. Initially, the facility invested over US$ 450 million across 370 energy efficiency and renewable energy projects in the commercial and residential sectors. Over 650,000 tonnes of estimated annual CO_2 emissions have already been avoided, which is equivalent to taking 3 per cent of all cars in Turkey off the road.

In Phase I, the EBRD blended US$ 222 million of its own commercial financing with US$ 47 million from the Clean Technology Fund (CTF)'s concessional climate finance to create more attractive pricing and longer loan maturities for local partner banks.

With an additional US$ 20 million from the Japan Bank for International Cooperation, TurSEFF was able to provide a total of US$ 260 million to five major Turkish banks – Akbank, Denizbank, GarantiBank, Isbank and Vakifbank. The loans enabled these institutions to create lending products for sustainable energy, develop a project pipeline, assess loan requests and verify the implementation of projects. TC support from CTF (US$ 2.4 million) and the European Union (US$ 7.5 million) was used to create awareness, build developer and lender capacity, and ensure robust monitoring and reporting.

TurSEFF has laid the foundations for a series of sustainable energy financing operations that continue to grow. Among these are the Mid-sized Sustainable Energy Financing Facility (MidSEFF), an EBRD facility for larger-sized projects, and a TurSEFF extension with US$ 2 million in CTF TC support and a new partner bank, YapiKredi. Both facilities operate on commercial terms.

CASE STUDY

KORES WIND PROJECT **TURKEY**

Project financed by GarantiBank through TurSEFF
Located near Izmir on the beautiful Aegean coast of Turkey, the Kores wind farm project has received financing of US$ 2.6 million from GarantiBank through TurSEFF. With total installed power of 2.5 megawatts of electrical output (MWe), Kores will increase the supply of renewable electricity by 8,850 megawatt hours (MWh) per year. This is equivalent to the annual electricity consumption of 900 Turkish households. As a result, the country will avoid expenditure of US$ 1.5 million on imported oil and will prevent 5,463 tonnes of CO_2 equivalent (CO2e).

BOOSTING RENEWABLE ENERGY: **UKRAINE SUSTAINABLE ENERGY LENDING FACILITY**

USELF

Ukraine is one of the most carbon-intensive countries in the EBRD region, at almost four times the average for the European Union. In 2009, the EBRD recognised the potential in supporting Ukraine's efforts to reduce its carbon intensity and launched the Ukraine Sustainable Energy Lending Facility (USELF).

USELF commercial finance of US$ 133 million, leveraged with US$ 53.2 million of CTF climate finance, plus US$ 8.8 million in TC support from GEF has catalysed development of the renewable energy sector in Ukraine.

The availability of climate finance for approximately 20 per cent of project costs, at attractive pricing and tenor, was crucial for bridging the capital gaps that would otherwise have prevented such projects from moving ahead. TC funding through the GEF helped the EBRD to support the government of Ukraine to strengthen the regulatory and policy environment for renewables. It also addressed the limited experience of local private sector developers.

> By the end of December 2013, 58.2 MW of new renewable energy capacity had been financed

Financing and TC have been provided directly to small and medium-sized renewable energy projects in the biomass, small hydro, solar and wind sectors to:

- demonstrate the benefits of such investment
- encourage and support policy dialogue and institutional capacity-building that foster a favourable environment for the development of the renewable energy sector
- build private sector capacity among project developers.

While establishing a renewable industry in a nascent market has proved to be challenging, seven projects have now been signed under the USELF framework programme. These use US$ 68.5 million of combined EBRD and CTF financing and have leveraged over US$ 110.9 million in total project investment.

With a robust project pipeline and a Phase II recently announced, a strong foundation has been established for further renewable energy development in Ukraine. This will boost the country's efforts to reduce greenhouse gas emissions and to improve its energy security.

FINDING ADAPTATION **SOLUTIONS**

The EBRD region contains some of the most climate-vulnerable countries in the world – from water-scarce North Africa to the glaciers of Central Asia.

In partnership with the CIF and the GEF, the Bank has moved quickly to develop innovative responses to the need for climate change resilience. With the support of these partners, the EBRD provides technical support and carefully designed finance that helps businesses and communities take practical steps towards climate resilience by adopting appropriate technologies and practices.

These innovations include reducing water wastage in vulnerable supply networks, generating better data on how climate shifts will affect hydropower generation, and working with local financial institutions to make climate-resilient technologies affordable and accessible for small businesses.

CASE STUDY

WATER SUPPLY IN TALAS KYRGYZ REPUBLIC

The city of Talas in the Kyrgyz Republic is extremely vulnerable to the impact of climate change on its water infrastructure. With the help of a comprehensive financing package composed of US$ 1.5 million from the GEF's Special Climate Change Fund and US$ 2.7 million from the EBRD, Talas is securing the future of its water supply. The municipality is integrating practical climate resilience measures into the upgrade of its water and wastewater infrastructure. This model is now being replicated by the EBRD in other cities across the Kyrgyz Republic and beyond. In addition, through capacity-building, technical cooperation and awareness-raising, alongside investment, the EBRD promotes the longer-term sustainability of these improvements in water infrastructure.

In addition, the catalytic effect of climate finance has made it possible to leverage significant co-financing for climate change adaptation from other EBRD resources and additional donors. This has brought the total for adaptation finance to more than €425 million since 2010, covering 65 adaptation projects in 20 countries.

MUNICIPAL SECTOR **IN KAZAKHSTAN**

The Central Asian Electric Power Corporation (CAEPCO), a private sector energy company in Kazakhstan, is improving the environmental performance and efficiency of its district heating subsidiaries in Pavlovdar, Ekibastuz and Petropavlovsk. The company aims to rehabilitate and improve the energy efficiency of existing heat distribution networks in these cities. CAEPCO has received US$ 30 million of EBRD financing, coupled with Clean Technology Fund (CTF) concessional financing of US$ 10 million to address affordability constraints associated with tariff increases linked to these investments. The EBRD has also provided US$ 532,000 of TC support from the EBRD Shareholder Special Fund to improve the company's environmental standards, plus US$ 212,800 for energy efficiency audits and studies to develop energy saving programmes for CAEPCO's clients. Together, all of these CAEPCO projects have yielded annual CO_2 reductions of over 128,000 tonnes.

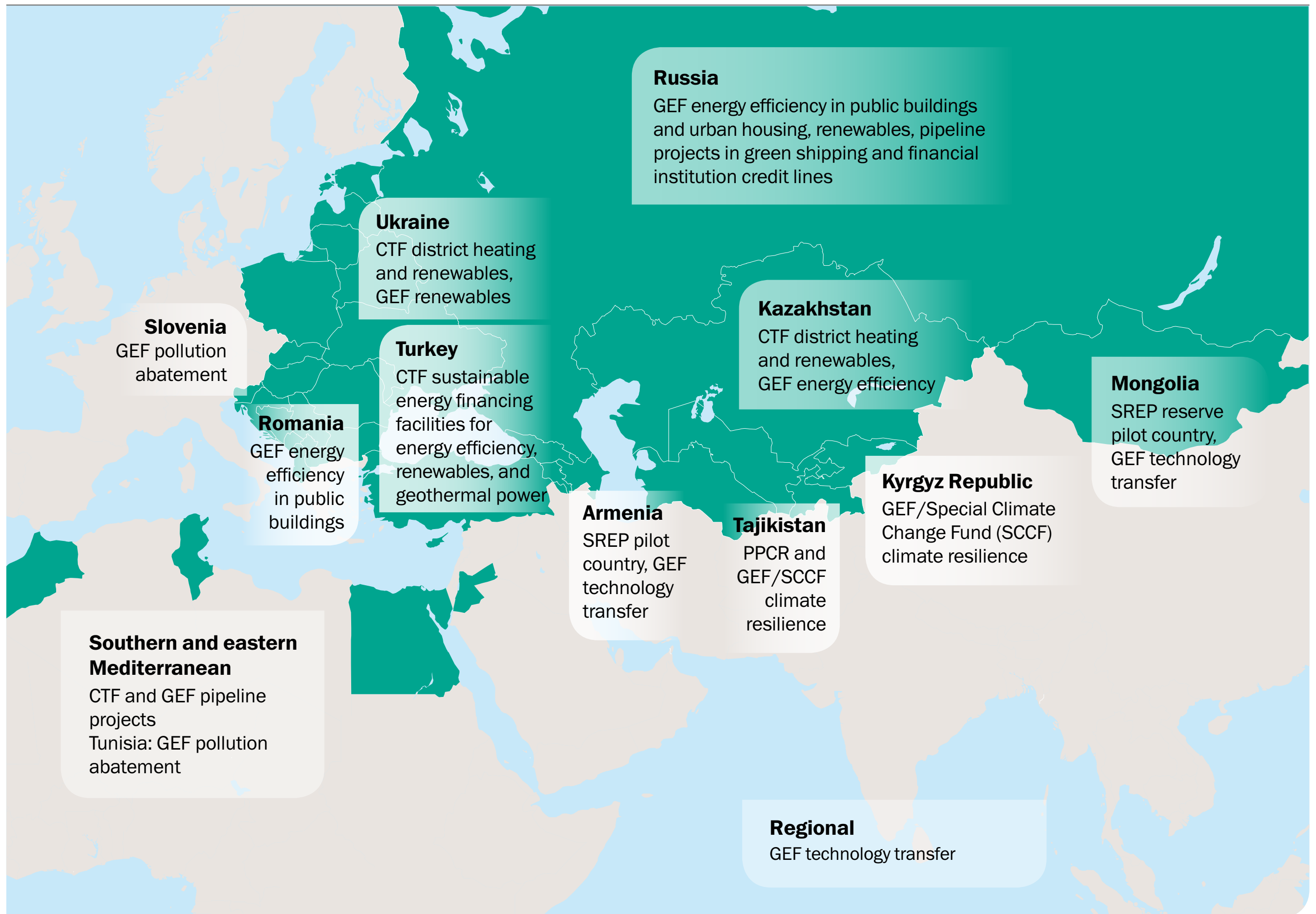
FINANCE AND TECHNOLOGY TRANSFER CENTRE FOR CLIMATE CHANGE

Climate technology transfer is a key component of global efforts to reduce greenhouse gas emissions and cope with climate change. The EBRD has recently launched the Finance and Technology Transfer Centre for Climate Change (FINTECC), with US$ 12 million of funding support from the GEF. A further US$ 6.65 million from the EBRD Shareholder Special Fund (SSF) and other donors complemented this support.

Investing in climate technology can increase profitability. It reduces energy and water costs and decreases regulatory and supply risks through better control of consumption and environmental impact. Climate technology can also improve the reliability of old and inefficient operations – all while reducing a company's carbon footprint.

The EBRD has provided a US$ 9.3 million loan to Bear Beer Company in the Kyrgyz Republic to expand the company's beverage production. As part of this project Bear Beer will introduce a CO_2 recovery system to replace less efficient, energy-intensive boilers. A FINTECC energy audit of Bear Beer's operations recommended energy efficiency measures, including the replacement of coal-based generation, which the company has since implemented. Bear Beer is proud to be the first beverage company in the Kyrgyz Republic that complies with EU beverage production standards.

MAP OF SUPPORT FROM CIF AND GEF



SEI SUSTAINABLE ENERGY INITIATIVE

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The EBRD is investing in changing people's lives from central Europe to Central Asia and the southern and eastern Mediterranean.

Working together with the private sector, we invest in projects, engage in policy dialogue and provide technical advice that fosters innovation and builds sustainable and open-market economies.

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