

## EBRD Project Proposal

### Private Sector Adaptation Acceleration Program in the Agribusiness Sector, Regional

#### 1. Introduction

Nearly a quarter of damages brought by climate extremes are borne by the agricultural sector in developing countries<sup>1</sup>. Climate change will further aggravate the severity and frequency of such events, with severe implications throughout agriculture supply chains. Events such as extreme temperatures and drought risk will threaten the productivity of major breadbaskets globally<sup>2</sup>, as well as will have an impact on the presence of pollinators, pests, disease vectors and invasive species<sup>3</sup>. Observations of the effects of climate trends on crop production indicate that climate change has already negatively affected crop yields, with the four crop groups accounting for about 70% of global crop harvested area projected to decline by 17% globally by 2050 relative to a scenario with unchanging climate.

Agriculture is a priority sector for the economic development and climate adaptation strategies of EBRD's Countries of Operation (CoOs). However, climate change poses a direct threat to activities across the agricultural value chain, from farm level to distributors and disproportionately affects more vulnerable workers such as women and minorities. The EBRD therefore intends to promote climate resilient transformation by catalysing ambitious investment and policy activities in the agricultural sectors of its CoOs. This ambition has also been reflected in the Climate Adaptation Action Plan<sup>4</sup>, launched at COP27, where the EBRD outlines a model of enhanced mainstreaming and policy integration of adaptation activities with a focus on the private sector. As outlined in the plan, the Bank has committed to diversify its portfolio of instruments and state-of-the-art approaches to strengthen its delivery of projects that are not only climate resilient, but also strengthen the adaptive capacity of society and economies.

Harnessing the EBRD's existing activities and experience across the agribusiness value chain, the EBRD proposes to assist stakeholders in the wider adoption of practices and technologies that enhance the resilience of the food sector to climate change. This can, for example, include soil conservation and water efficient irrigation practices, and the implementation of corporate risk management systems for physical climate change risks. Through promoting such approaches, the EBRD could:

- Reach out to clients and support them in the adoption of climate smart farming practices and technologies and when relevant attaining sustainable farming certifications (e.g., the Better Cotton Initiative) and water management standards (e.g., Alliance for Water Stewardship Certification).

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<sup>1</sup> [The impact of natural hazards and disasters on agriculture and food security and nutrition: A call for action to build resilient livelihoods \(fao.org\)](#)

<sup>2</sup> [Changing risks of simultaneous global breadbasket failure | Nature Climate Change](#)

<sup>3</sup> [fao.org/3/i5188e/i5188E.pdf](#)

<sup>4</sup> <https://www.ebrd.com/news/2022/launch-of-ebrd-climate-adaptation-action-plan-at-cop27.html>

- Support upstream food manufacturing, trading, wholesale and distribution companies improving the resilience of their own operations and supply chains to climate change via enhanced assessment and management of physical climate change risks and the implementation of risk mitigation measures.

### 1.1. Barriers to increasing adaptation and resilience in the food sector

Barriers to increasing adaptation and resilience in the food sector vary from country to country, but often include:

- 1) A lack of analytical capacity in understanding climate-related risks to food supply chains and risk drivers;
- 2) A lack of understanding around how interventions reduce risk and enhance resilience of agricultural production and supply chains to climate change induced stresses which are also gender inclusive;
- 3) The difficulty in establishing a viable business case for climate change adaptation projects especially when they do not result in easily predictable new revenue streams or cost savings;
- 4) A lack of capacity and adoption of innovative (private) climate adaptation financing mechanisms (e.g., results-based financing) to incentivize the necessary flows of investment towards activities that enhance resilience to climate change;
- 5) Lack of dedicated actions that are necessary for promoting gender equality and ensuring systemic change in increased capacity for climate change adaptation amongst women.
- 6) Challenges faced by agribusiness clients across the value chain in accessing financing needed for achieving climate adaptation and more specifically in traditionally 'hard-to-invest' sectors, such as agriculture.

Currently, according to the World Bank, almost 95% of international climate finance is based on upfront financing based on project activities. However, results-based finance can be very suitable to overcome some of the barriers highlighted in the introduction and incentivize the private sector to participate in, and benefit, from adaptation activities by effectively delivering on verifiable KPIs.

### 1.2. Strategic Aim of Program

Against this backdrop, the proposed Program will support the private sector to identify, prepare and implement climate change adaptation activities throughout the agribusiness value chains (from farm level to distributors) across a diverse set of stakeholders. The Program will support projects through TA grants and results-based loans, whereby the level of concessionality will be conditional on the achievement of certain milestones (e.g., interest rate step-down or step-up) such as improvement in corporate climate governance and the implementation of climate change adaptation measures/projects.

### 1.3. Geographical Scope of Program

The scope of the proposed Program will be open to all CIF countries in EBRD's region, however, based on the Bank's current pipeline, we estimate that a substantial portion of the budget will

benefit Türkiye, Morocco and Ukraine with potential opportunities in other countries such as Tunisia, Egypt, Kyrgyzstan, Uzbekistan, etc.

## 2. Climate Change Risk to Agricultural Sector in EBRD's CoOs

Climate change poses a direct threat to activities across the agricultural value chain, from farm level to distributors, in the EBRD region. Water stress is one of the most pervasive hazards in the region, with vast areas subject to high, and increasing levels of water stress (see Figure 2), driving chronic desertification trends in the region. Acute threats such as increasing extreme temperatures and droughts induce more uncertain and often reduced crop yield, in turn leading to volatility in the global food system. Climate risks also pose challenges for other stages of the value chain, for example in processing, manufacturing and transportation of goods which can be disrupted by extreme heat and disruptions in water supply. As such, increasing climate change hits the balance sheet of actors across the value chain, in turn, threatening livelihoods, national development and food security.

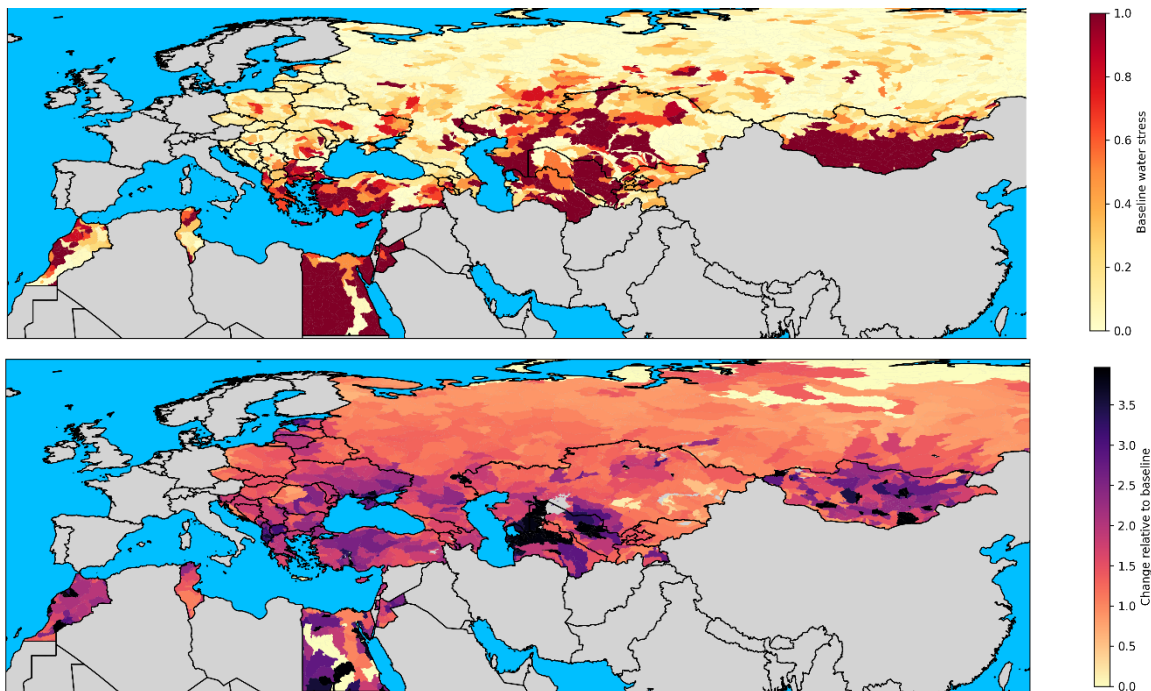


Figure 2. Baseline water stress (top) and future change water stress in 2040 relative to baseline under SSP2 RCP8.5 in the EBRD region (bottom) (Source: Aqueduct)

Population and economic growth heighten societal exposure to such volatility, driving the need for investments in resilience across the agricultural value chain. Strengthening the climate resilience of the agricultural sector can provide a lifeline for rural populations (both men and women) and support local food security. At the national level, the agricultural sector contributes substantially to GDP, e.g., up to 25% in Central Asia. Thus, supporting the overall resilience of the sector in the face of climate change provides a key channel for economic development. Further, boosting national food production can reduce import dependence and, hence, vulnerability to international food price shocks and inflation.

### 2.1. Land Degradation Risks Posed by Climate Change and Unsustainable Practices

At the same time, unsustainable use of fertilizer and pesticides, alongside intensive tilling, overgrazing and deforestation, leads to the erosion of topsoil, reduced soil productivity, and influxes of pollution into watercourses during heavy rainfall events. This comes at a cost to farmers, downstream water users and the environment in general. Climate change is expected to exacerbate the negative impacts of agricultural activities through driving the risk of extreme rainfall events and drought periods, leading to greater rates of erosion and the intensification of harmful contaminants in waterways, respectively.

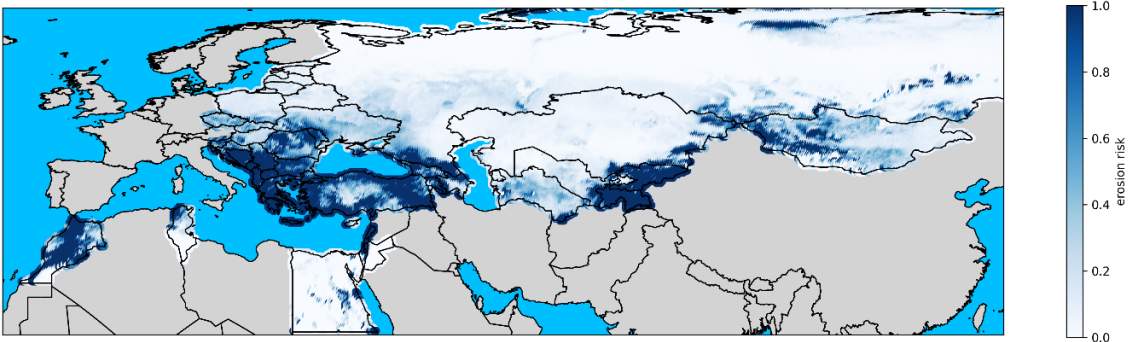


Figure 3. Risk of soil erosion in the EBRD region (Source: ESDAC)

### 2.2. Climate Vulnerability Context in Ukraine and Türkiye

A significant portion of the budget will be directed to Ukraine, Morocco and Türkiye, which have highly climate vulnerable agricultural sectors.

#### 2.2.1. Türkiye

Agricultural output in Türkiye has increased significantly in recent years, with exports of food products rising to about \$20.7 billion in 2020, representing about 10% of national exports<sup>5</sup>. The sector accounts for 6.6% of Türkiye's economy and employs about 18% of the labor force<sup>6</sup> with significant employment disparities between women and men. However, it faces important productivity challenges as growth in agricultural output has been driven primarily by input intensification and far less by improvements in resource-use efficiency and technological adoption. However, in Türkiye, the effects of changes in precipitation and temperature levels due to climate change have already been found to have led to changes in crop yields and agriculture growth seasons<sup>7</sup>. Without urgent action across the diversity of stakeholders, Türkiye will see a 37% increase in the frequency of agricultural drought and increased duration of heatwaves of 42%, threatening up to 2.26% of GDP by 2050<sup>8</sup>.

<sup>5</sup> [World Bank Provides \\$341 Million Boost to Advance Green and Competitive Growth of Turkey's Agricultural Sector](#)

<sup>6</sup> [World Bank Provides \\$341 Million Boost to Advance Green and Competitive Growth of Turkey's Agricultural Sector](#)

<sup>7</sup> [Climate change and spatial agricultural development in Turkey - Karahasan - 2023 - Review of Development Economics - Wiley Online Library](#)

<sup>8</sup> [Turkey - G20 Climate Risk Atlas \(g20climaterisks.org\)](#)

### 2.2.2. Ukraine

Ukraine's agriculture sector is an important source of livelihoods for the roughly 13 million Ukrainians living in rural areas. Ukraine's agriculture sector accounts for 11% of the country's GDP, nearly 20% of its labor force<sup>9</sup>. Today, the sector is facing important labor and skills shortages driven by the war and mobilization affecting mostly men. This in turn requires important re and up-skilling efforts that can be an opportunity for implementing improved adaptation practices. With Ukraine being among the largest agricultural exporters, a strong and stable agriculture sector in Ukraine is thus critical for global food security. However, In Ukraine, a World Bank study finds that by the middle of the century climate change will contribute to decreased yields of the country's main crops, including barley, maize, and sunflower<sup>10</sup>.

### 2.2.3. Morocco

Morocco experiences chronic water scarcity and agriculture is central to Morocco's economy. The agricultural sector contributes 15% of GDP and generates 40% of the jobs nationwide, mostly in rural areas where the majority of lower income households are concentrated. While over 52% of the agricultural labor force are women, they are in most cases classified as "contributing family worker" and are not salaried or self-employed and it is harder for them to receive training. With over 80% of water used for irrigation, it is essential that water for irrigation is sourced sustainably and used efficiently, to support livelihoods and economic development for the rural population over the long term. However, currently 18% of irrigated land is managed using unsustainable practices, perpetuating water stress and leading to poor productivity, crop loss and diseases. Morocco is among the most water stressed countries globally. Climate change is projected to drive rising temperatures and declining rates of annual rainfall, leading to a reduction in available water resources of ~25% and increasing drought severity. Agricultural droughts, driven by increasing rates of evapotranspiration from the land surface and leading to reduced crop productivity, are particularly sensitive to climate change. Increasing water demand, particularly for cities and agriculture, is another key driver of water stress. Morocco is severely affected by land degradation and desertification. The climate is arid with increasingly long drought periods and the soils are poor and highly vulnerable to erosion. An economic analysis has estimated the global cost of lost productivity in Morocco as a result of land degradation at between US\$ 91-178 million per year (cropland and rangeland degradation). Erosion also leads to the pollution of watercourses with fertilizers and pesticides, undermining freshwater habitats and the quality of water for downstream users.

## 3. Project Structure and Components

The Program will support the private sector to identify, prepare and implement climate change adaptation activities throughout the agribusiness value chains (from farm level to distributors). The Program will support projects through TA grants and results-based loans, whereby the level of concessionality will be conditional on the achievement of certain milestones (e.g. interest rate step-down or step-up) such as improvement in corporate climate governance and the

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<sup>9</sup> <https://reliefweb.int/report/ukraine/agriculture-fact-sheet-enuk>

<sup>10</sup> [New World Bank Study Analyzes Climate Change Impact in Ukraine, Calls for Action to Build Resilience in Agriculture](#)

implementation of climate change adaptation measures/projects. Certain projects may also include the monitoring of gender equality related measures to that end.

Currently, according to the World Bank, almost 95% of international climate finance is based on upfront financing based on project activities. However, results-based finance can be very suitable to overcome some of the afore-mentioned barriers and incentivize the private sector to participate in, and benefit, from adaptation activities by effectively delivering on verifiable KPIs. Therefore, the EBRD is considering delivering the Program support through the below-mentioned financial mechanisms. We propose to pilot these approaches for wider, ongoing application to support the climate resilience of new and existing agribusiness operations in the EBRD region.

1. Technical assistance: Support will be provided to clients to raise awareness around, and identify climate risks and potential adaptation opportunities (and relevant results based financing targets) both in their own operations but also throughout their supply chain. The EBRD will also build on its work with clients supporting them enhancing their **corporate climate governance (CCG)**. TA grants may also be used to provide training to farmers and other stakeholders along the value chains for successfully implementing/adapting to the new climate activities/management practices (such as sustainable farming practices supported by the project). All investments will pay attention to promoting gender equality in line with the Paris Agreement Lima Work Program Gender Action Plan (LWP GAP) by applying the Gender Equality in Climate Action (GECA) Accelerator Toolkit to diagnose systematically gender gaps in line with the LWP GAP and propose relevant solutions to reduce identified gender gaps linked to CCG, and provide dedicated outreach to women farmers for training. Companies can use the GECA Accelerator diagnostic and proposed actions for their public disclosure, ESG reporting, sustainability reporting, or on other platforms to further showcase their support to gender responsive climate resilience.
2. Investment support: Support will be provided through results-based loans, where the level of concessionality will depend on the achievement of certain milestones agreed on prior to loan signing (a minimum of 2 milestones will be set for each project, depending on the latter's specificities). The pricing discount mechanisms of the loan may include step-down and step-up pricing adjustments, such as in the options below:
  - Upfront discount in pricing of the PPCR loan down to floor rate with a clawback clause to retrospectively readjust interest payment at loan maturity depending on the number of milestones that have been met on time during loan tenure. This enables to 1) offer higher level of financial incentives; 2) front-load financial incentive to match the risk profile of projects with high implementation risks, and 3) provide sufficient financial incentives when ambitious milestones can only be achieved towards the end of loan maturity when most of the loan principal has been repaid.
  - Progressive step-down in pricing from EBRD commercial pricing upon achievement of milestones.

- Progressive step-up in pricing from floor rate in case of non-achievement of a milestone by a specific date.

N.B. loans might be provided both for supporting working capital and investments.

The Program might also extend support using technical assistance and/or results-based financing, to some pilot projects under, or associated with, the AfDB's Adaptation Benefits Mechanism (ABM). If this is done, the objective of our support will be to test and showcase how the mechanism might help mobilize private finance for adaptation activities in the agribusiness sector in the EBRD region.

### 3.1. Potential projects

We propose a systemic result-driven approach that engages clients across the supply chain:

- At production facility level, the Program aims to support clients in the adoption of climate smart practices and technologies (such as silos, cold change and climate resilient drainage systems) and when relevant attaining sustainable certifications (e.g., the Better Cotton Initiative) and water management standards (e.g., Alliance for Water Stewardship Certification).
- At corporate and supply chain level, the Program aims to support upstream food manufacturing, trading, wholesale and distribution companies improving the resilience of their own operations and supply chains to climate change via enhanced assessment and management of physical climate change risks and the implementation of risk mitigation measures.

The EBRD has a solid track record of supporting projects in the agriculture/food sectors including a solid pipeline of recently signed or upcoming projects that could benefit from PPCR support.

#### 3.1.1. Louis Dreyfus Company in Türkiye

Louis Dreyfus Company (LDC) is a commodity trader in Türkiye and Ukraine and has already benefitted from EBRD's support: the project consisted of supporting the procurement of cotton in Türkiye and grain in Ukraine. As part of the project:

- LDC worked with a specialized consultant to identify gaps in the corporate climate governance and develop a corporate climate governance action plan aligned with the recommendations from the TCFD.
- LDC worked with a leading research institute to undertake an assessment of physical climate change risks on their Turkish cotton supply chain and Ukrainian grain supply chain.
- LDC promoted and supports cooperation between its supplying ginners/farmers and IPUD (the Better Cotton Initiative agent in Türkiye) to increase the number of farmers that obtain BCI training and certification in Türkiye, including a dedicated share of women farmers.
- LDC arranged BCI training and certification of new cotton farmers in Kazakhstan.

The project contributed to improve the company's governance on climate change and improve the management of climate change related risks and opportunities in two supply chains while promoting more sustainable and climate smart cotton production in Türkiye and Kazakhstan.

The EBRD is now planning to provide another loan to the Company to work on the Better Cotton initiative to improve certification and support farmers training in Türkiye. TC support provided within this proposal could be used for supporting this initiative.

Additional examples of recent or upcoming projects that could benefit from PPCR support include:

### 3.1.2. Astarta in Ukraine

The EBRD has recently approved a USD 30 million loan, of which a USD 9 million results-based loan provided by the CIF CTF, in support of Astarta group in Ukraine (one of Ukraine's leading vertically integrated agro-holdings). The loan financed both working capital and CAPEX costs and piloted sustainability-linked pricing in the agribusiness sector in Ukraine. Loan pricing depended on:

- i) improvements in the group's climate strategy,
- ii) changes in their agricultural practices, and
- iii) completion of CAPEX investments in resource efficiency practices.

The project helped the group adopt soil conservation and agro-ecological farming practices (on roughly 60,000 ha of land). The implemented sustainable farming practices are also likely to provide significant ecosystem co-benefits through enhanced soil health and biodiversity, reduced nutrients leakages and reduced pest pressure.

The EBRD will seek to replicate similar transactions but with a stronger emphasis on climate change adaptation.

### 3.1.3. May Seed in Türkiye

The EBRD has provided a EUR 7.5m senior loan for financing the working capital needs of one of the leading private producers of seeds in Türkiye and a pioneer in the field of seed production, as well as research and development (R&D) and production capital expenditures. The company is also a leader when it comes to diversity inclusion, being the first signatory of the UN Women Empowerment Principles (WEP) among seed producers in Türkiye.

The Project supported:

- i) Ongoing R&D Programs via further improvement of R&D efficiency and commercialisation of in-house developed products resulting from R&D.
- ii) Higher uptake of water efficient drip irrigation in its sunflower seed production area from 84 per cent to 100 per cent within four years. This will reduce water usage, increase water savings by around 40 per cent and boost agricultural productivity by approximately 20 per cent in terms of yields.



- iii) EBRD grant funding was used to finance May Seed's comprehensive Program of financial and climate literacy and of sustainable farming, including environmentally friendly irrigation, drought precautions, ecology and new agricultural technologies, and reaching out to underserved regions of Turkey.

The project engaged private sector in enabling adaptation through the development of more climate resilient seeds in the face of heat stress and drought, as well as by promoting the use of drip irrigation technologies, reducing water stress in the country.

The EBRD will seek to replicate this type of transactions with other agribusiness clients.

#### 3.1.4. Project Saiss in Morocco

EBRD is working with the Government of Morocco to preserve the Saiss aquifer. This project is the final part of a staged program that was put in place in 2017. The staged Program consists of the construction of a 135 km (45 km outside the Saiss plain and 90 km within the Saiss plain) water transfer pipeline from the M'Dez dam to the boundary of the irrigation perimeter as well as the primary and secondary distribution networks for 30,000 ha of agricultural land.

The overall project changes the paradigm of water provision for the Saiss irrigation system, switching from unsustainable groundwater abstraction to the use of environmentally and socially sustainable and climate resilient surface water resources. It will enhance climate change resilience of rural communities to promote food and water security by improving water access and sustainable infrastructure, improved institutional capacity and climate risk preparedness, including for women farmers.

The programme may support similar projects for example by supporting improvements in water stewardship, support investments in water efficient and climate resilient technologies and infrastructure and support extension services to support climate smart farming practices.

#### 4. Expected Outcomes

The overall objective of the project is to enhance the resilience to climate events and climate change throughout agriculture and agribusiness value chains in the EBRD region by working with a wide range of stakeholders, including harder-to-reach groups. This will allow improving overall food security by increasing productivity, reducing the potential impacts of climate events on both men and women, as well as international price shocks, on the food sector.

Moreover, the project will come with enhanced soil quality and biodiversity co-benefits. It will allow farmers and food sector corporates to invest in resilience activities and sustainable and gender inclusive practices that will lead to enhanced resilience that will go well beyond the project scope.

Finally, the project will deploy results-based financing mechanisms (in this case loans) for adaptation activities in the agriculture/food sectors. This will allow to test and showcase the effectiveness of such mechanisms. For example, the AfDB's ABM might serve as a reference for

financing some pilot projects. Results-based financing is an impactful way of incentivizing the private sector to invest in adaptation activities and practices.

### 5. Project Implementation Arrangements

The EBRD will be the implementing MDB for this project. Procurement of goods, services and/or works (such as contracting with third-party consultants for the technical assistance component) shall be carried out in accordance with the EBRD's usual policies and procedures including EBRD's procurement policies and rules.

## Annex I: Results Framework

