

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Supporting the ratification and phase-down of hydrofluorocarbons in production: A regional initiative for enhanced action in Central Asia and Eastern Europe

Region	GEF Project ID
Regional	11881
Country(ies)	Type of Project
Regional	FSP
Azerbaijan	
Kazakhstan	
Ukraine	
Uzbekistan	
GEF Agency(ies):	GEF Agency ID
UNIDO	250029
Executing Partner	Executing Partner Type
Regional Environmental Centre for Caucasus, Azerbaijan Branch (REC Caucasus)	Others
Ministry of Ecology and Natural Resources of the Republic of Kazakhstan (TBC)	Government
Ministry of Environmental Protection and Natural Resources of Ukraine (TBC)	Government
Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan (TBC)	Government
GEF Focal Area (s)	Submission Date
Chemicals and Waste	3/5/2025

Project Sector (CCM Only)

Mixed & Others

Taxonomy

Capacity Development, Capacity, Knowledge and Research, Field Visit, Knowledge Exchange, Conference, Innovation, Seminar, Knowledge Generation, Workshop, Training, Course, Enabling Activities, Targeted Research, Gender Mainstreaming, Gender Equality, Civil Society, Stakeholders, Academia, Trade Unions and Workers Unions, Non-Governmental Organization, Demonstrate innovative approach, Influencing models, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Sustainable Development Goals, Focal Areas, Ozone, Chemicals and Waste, Sound Management of chemicals and waste, Disposal, Best Available Technology / Best Environmental Practices, Hazardous Waste Management, Waste Management, Green Chemistry, Private sector, Climate Change Adaptation, Climate Change, Energy Efficiency, Climate Change Mitigation, Technology Transfer

Type of Trust Fund	Project Duration (Months)
GET	48

GEF Project Grant: (a) 6,375,343.00	GEF Project Non-Grant: (b) 0.00
Agency Fee(s) Grant: (c) 605,657.00	Agency Fee(s) Non-Grant (d) 0.00
Total GEF Financing: (a+b+c+d) 6,981,000.00	Total Co-financing 50,000,000.00
PPG Amount: (e) 200,000.00	PPG Agency Fee(s): (f) 19,000.00
PPG total amount: (e+f) 219,000.00	Total GEF Resources: (a+b+c+d+e+f) 7,200,000.00
Project Tags CBIT: No NGI: No SGP: No Innovation: No	

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B "project description". (max. 250 words, approximately 1/2 page)

The project aims to supporting the ratification and implementation of the Kigali Amendment to the Montreal Protocol provisions by Central Asia and Eastern Europe countries - Azerbaijan, Kazakhstan, Uzbekistan, and Ukraine. The primary objective is to strengthen the capacity of these countries' governments to manage HFC phase-downs in line with the Kigali Amendment. The project components are:

- 1) Industrial Policy Development:** This component focuses on institutional capacity building, supporting countries in ratifying the Kigali Amendment, and developing legal and regulatory frameworks for HFC phase-down and energy efficiency improvements in refrigeration, air conditioning, and heat pump (RACHP) equipment.
- 2) Technological Transformation:** This component includes RACHP sector needs assessments, piloting of low-GWP technologies, establishment of national innovation centers, and upgrading facilities for HFC destruction. The goal is to demonstrate green technology supply chains and establish sustainable recovery, and recycling mechanisms for refrigerants.
- 3) Capacity Building and Awareness-Raising:** This component aims to promote knowledge sharing and awareness among stakeholders. Activities include the development of a regional knowledge exchange dashboard, capacity-building programs, and awareness-raising campaigns on low-GWP technologies and their benefits.

The following GEB indicators were defined for the project: Indicator 6.2 Emissions avoided outside AFOLU sector -12,790,483 metric tons of CO₂e (indirect), Indicator 9.3 Hydrochlorofluorocarbons (HCFC) Reduced/Phased out (ODP) - 38.79, Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste – 4, counted as number of countries which

ratified of Kigali Amendment and developed relevant legislation and policy, Indicator 11 People benefiting from GEF-financed investments - 248,600, including 15,240 women.

Indicative Project Overview

Project Objective

The project aims to enhance climate action in Central Asia and Eastern Europe by the support of the Kigali Amendment ratification and phase-down of hydrofluorocarbons (HFCs) in target countries (Azerbaijan, Kazakhstan, Uzbekistan and Ukraine) through the strengthening of the institutional and industrial capacity, using the regional approach. Therefore, the main Objective of the project should be the strengthened capacity of the governments of target countries to manage phase-down HFCs in line with Kigali Amendment to the Montreal Protocol.

Project Components

Component 1: Industrial Policy Development

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,087,668.00	7,000,000.00

Outcome:

Strengthened institutional, regulatory, enforcement, and monitoring capacities for management of HFCs consumption

Output:

Countries HFCs consumption baseline established.

Proposals to ratifying the Kigali Amendment development and submitted to the national authorities for endorsement.

Kigali HFC implementation plans (KIP) developed and adopted.

Gaps identified; recommendations proposed to improve policies/ regulations in line the Kigali Amendment.

Regulatory policies, regulations and guidance documents developed.

Licensing, quota and customs control systems to manage the import and export of HFCs in accordance with the trade control articles of the Kigali Amendment established and the relevant authorities authorized to do so.

Component 2: Technological Transformation

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
2,719,172.00	29,000,000.00

Outcome:

Circular economy technologies and practices demonstrated supply chains for identified sectors

Output:

Baseline technologies and needs assessment in key industrial sectors.
Conversion of pilot enterprises to phase out HFC;
Upgrade of pilot cement kilns and destruction facilities for HFC destruction;
Equip pilot RACHP service sector companies with equipment of HFC collection;
Equip testing laboratories to support the implementation and update of minimum energy performance standards (MEPS) and equipment labelling

Component 3. Capacity Building and Awareness-Raising

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,693,503.00	9,000,000.00

Outcome:

Promotion of knowledge, experience and lesson learned and awareness raising among stakeholder groups

Output:

Established the regional dashboard for data exchange, collaboration fostering dialogue among stakeholders to address common challenges on management of HFCs consumption;
Project best practices and approaches documented and available for sharing and replication;
Awareness raising and communication campaign on low-GWP and high-efficiency equipment and refrigerant alternatives and their economic and environmental benefits for target groups: i) governmental institutions, ii) local populations, and iii) end-users and industries in the RACHP sector developed and implemented;
Developed curricula, training materials and tools, supply educational equipment for training centers and conducted trainings:

- o capacity-building of customs and enforcement officers;
- o capacity-building of RACHP technicians.

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
300,000.00	1,500,000.00

Outcome:

Ongoing monitoring and evaluation

Output:

Midterm and terminal evaluation;

M&E regular progress reporting;

Steering Committee meetings.

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
Component 1: Industrial Policy Development	1,087,668.00	7,000,000.00
Component 2: Technological Transformation	2,719,172.00	29,000,000.00
Component 3. Capacity Building and Awareness-Raising	1,693,503.00	9,000,000.00
M&E	300,000.00	1,500,000.00
Subtotal	5,800,343.00	46,500,000.00
Project Management Cost	575,000.00	3,500,000.00
Total Project Cost (\$)	6,375,343.00	50,000,000.00

Please provide justification

The PMC on 9,9% based on the regional status of the project. Since the project is regional and includes a significant number of activities carried out at the national level, separately in each country, its management is more complicated comparing with national projects because there will be two levels of its management: 1) national and 2) regional. The 1st level represented at the national level, it will be provided by the Project national coordinators or executing entities (will be identified and confirmed during the PPG phase). They will perform part of the management and administration of the day-to-day activities of projects at the national level. Under supervision of the Project Manager they will prepare and coordinate with the national focal points and stakeholders separate national project work plans and coordinate its implementation at the national level. The 2nd (regional) level will perform by the PMU hosted in the UNIDO HQ. At this level, mutual coherence of national project plans, their synergy with each other, timeliness, consistency and regional coordination will be ensured. There will be provided management of the project output deliverables; maintenance of records of all project-related documentation; management and administration of the Knowledge Management Plan; preparation of progress reports and financial reports for the project; financial auditing for the project and other activities as defined in the GEF Guidelines on the Project and Program Cycle Policy for the PMC.

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Global environmental issues

The Montreal Protocol, adopted in 1987, successfully phased out ozone-depleting substances (ODS) such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs). However, HFCs were introduced as alternatives to these ODS, leading to unintended consequences for climate change. While the Montreal Protocol has been highly effective in repairing the ozone layer, the shift to HFCs created a new environmental challenge.

The rapid growth in HFC use, driven by increasing demand for cooling in both developed and developing countries, has made HFCs one of the fastest-growing sources of GHG emissions. Although HFCs currently account for approximately 2%^[1] of total GHG emissions, their global warming potential (GWP) is significantly (ranging from hundreds to thousands of times) higher than CO₂. Many HFCs are very powerful, short-lived climate pollutants with an average atmospheric lifetime of 15 years.

The Kigali Amendment to the Montreal Protocol, adopted in 2016, addresses one of the most pressing global environmental issues: the rapid increase in the use of HFCs and extends the Protocol's mandate to ensuring that the transition to alternatives does not exacerbate global warming. Under the Amendment, all countries will gradually phase down HFCs by more than 80% over the next 30 years and replace them with more planet-friendly alternatives. Without implementation of the Kigali Amendment, it is estimated that global HFC emissions could amount to 5-11% of total CO₂ emissions by 2050^[2]. Phasing down HFCs under the Protocol is expected to avoid up to 0.5°C of global warming by the end of the century, while continuing to protect the ozone layer^[3].

Global demand for cooling is increasing due to population growth, urbanization, rising incomes, and climate change itself (e.g., more frequent heatwaves). This has led to a surge in the use of HFC-based refrigeration and air conditioning systems. Without intervention, HFC emissions are projected to grow exponentially, contributing significantly to global GHG emissions. The response to these challenges is to decouple cooling demand from HFC use by promoting energy-efficient, low-GWP alternatives.

The RAC (Refrigeration and Air Conditioning) sector contributes significantly to global greenhouse gas (GHG) emissions, stemming from both direct emissions due to refrigerant usage and indirect emissions resulting from the operation of equipment powered by fossil-fuel-based energy sources. The global energy demand for cooling is expected to increase by 45% by 2050 compared with 2016 levels (from 7 to 12 exajoules). One

reason for this is that only a third of the global population currently living in hot climates possesses cooling appliances^[4].

Kigali Amendment implementation

The Kigali Amendment represents a critical step in global efforts to combat climate change by addressing HFCs. By establishing a clear phase-down schedule, promoting low-GWP alternatives, and providing financial and technical support to countries, the amendment ensures a coordinated and equitable transition to sustainable cooling technologies.

HFC phase-down schedule

- The amendment establishes a gradual **phase-down schedule for HFCs**, requiring both developed and developing countries to reduce their production and consumption of HFCs over time.
- Countries are divided into four groups with different **baseline years and phase-down timelines**:

4/14/2025

- Each country's **baseline level for HFC consumption** and production is calculated based on historical data, typically using average HFC use during a specific reference period.
- The amendment sets **reduction targets** as a percentage of the baseline, with specific milestones to be achieved at regular intervals.

Regulatory framework policy development

- The amendment encourages the develop and implement **policies and regulations to control and reduce HFC use**.
- Countries are encouraged to develop and endorse of **National Kigali Implementation Plans (KIPs)**.

Promotion of low-GWP alternatives

- The amendment encourages the adoption of **low-GWP and climate-friendly alternatives to HFCs**, such as natural refrigerants (e.g., ammonia, carbon dioxide, hydrocarbons) and next-generation synthetic refrigerants.
- It promotes the development and deployment of **energy-efficient technologies in the RAC sector** to maximize climate benefits.

Monitoring, reporting and verification

- Countries are required to establish **monitoring systems to track HFC** production, consumption, and trade.
- Regular **reporting of data** to the Ozone Secretariat is mandatory to ensure transparency and compliance with the amendment.

Capacity building and technical assistance

- The amendment emphasizes the importance of **capacity building** for countries, including training programs for customs officers, environmental inspectors, and RAC technicians.
- **Technical assistance** is provided to help countries transition to low-GWP technologies and improve energy efficiency in the RAC sector.

Prevention of illegal trade

- The amendment includes provisions to **prevent the illegal trade of HFCs**, which could undermine the phase-down efforts.

- Countries are encouraged to establish **licensing and quota systems to regulate the import, export, and production of HFCs.**

Global cooperation and regional approaches

- The amendment fosters **regional cooperation** among countries to share best practices, technologies, and lessons learned.
- It encourages the establishment of **regional networks and knowledge-sharing platforms** to support the phase-down process.

Baseline status

The countries participating in the project are the last four countries in the region of Central Asia and Eastern Europe that have not ratified the Kigali Amendment and have not begun implementing it.

Despite the fact that all countries participating in the projection have not yet ratified the Kigali Amendment, the level of compliance of decisions and progress in the adoption of policies and decisions arising from it differs among countries.

Particularly, Uzbekistan introduces system of export-import control for HFCs and licensing.

Kazakhstan and Ukraine started with the ratification documents development. Thus, Ministry of Ecology and Natural Resources of the Republic of Kazakhstan developed a draft Law of the Republic of Kazakhstan for Kigali Amendment ratification in the middle 2024. Draft law on ratification of the Kigali Amendment has already been submitted by the President to the Verkhovna Rada of Ukraine.

In general, Ukraine is more advanced in terms of taking measures aimed at implementing the Kigali Amendment compared to other countries: licensing and quota systems are established and operate, HFC import/export is regulated, HFC baseline consumption level was computed.

Kazakhstan is a member of the Eurasian Customs Union, within the framework of which in 2021 a permitting procedure for the export and import of HFC was established.

Countries are committed to implementing the Montreal Protocol and ensure that the necessary measures for its implementation and timely reporting are taken at the appropriate level. All project countries almost completed HCFCs phase out. As per last countries reports (for 2023-2024), Azerbaijan and Ukraine reported about 0 HCFC consumption, Kazakhstan and Uzbekistan indicated 0.25 ODP tons and 0.3 ODP tons respectively which significantly lower than baseline.

The countries are active participants in the climate convention and Rio convention as well as the chemical conventions including the Stockholm, Basel and Minamata conventions. The requests submitted by countries for participation in the GEF project confirm their desire to ratify the Kigali Amendment with the engagement of international expertise and assistance in the development and execution measures for its implementation.

All countries in the project are committed to carbon neutrality and are taking appropriate measures. Azerbaijan has approved the 'Azerbaijan 2030: National Priorities for socio-economic development' which includes climate change mitigation as a national priority, with commitments to reduce emissions, increase green energy, and enhance resilience to climate change. Kazakhstan's Strategy of the Republic of Kazakhstan on Achieving Carbon Neutrality by 2060 was approved by the Decree of the President on February 2, 2023. Ukraine adopted the Law "On the Basic Principles of the State Climate Policy" on October 8, 2024, outlining measures to achieve climate neutrality by 2050 and Strategy for the formation and implementation of state policy in the field of climate change for the period until 2035, Uzbekistan increased its commitments in the updated Nationally Determined Contribution (NDC) and aims to reduce specific GHG emissions per unit of GDP by 35% by 2030 from the 2010 level, instead of the 10% reduction provided for in the 1st NDC.

In the presence of political will and adopted political documents aimed at climate action and economic development as priorities for the development of countries, countries do not have the capacity to fully implement the obligations of the Montreal Protocol and the Kigali Amendment. This is due to the following challenges that were identified as barriers. The following significant barriers have been identified that hinder countries for phasing out HFCs and moving to new low-GWP technologies and equipment:

Institutional	<p>Insufficient political commitment to prioritize HFC phase-down over national economic or industrial priorities</p> <p>Complex administrative processes and slow decision-making to the ratification of the Kigali Amendment and the implementation of related policies</p> <p>Baseline level of HFC consumption and targets for reduction of HFC consumption have not been established (except Ukraine)</p>
Regulatory	<p>Lack National Kigali Implementation Plans, policies and regulations to enforce HFC phase-down and related energy efficiency standards</p> <p>Lack of licensing and quota systems in some project countries to regulate the import, export, and production of HFCs to prevent the illegal trade of HFCs</p> <p>Weak monitoring systems to track HFC production, consumption, and trade</p>
Technical	<p>Weak promotion of low-GWP and climate-friendly alternatives to HFCs and energy-efficient technologies in the RACHP sector on the markets</p> <p>Adoption by countries of licensing and quota systems to regulate the import, export and production of HFCs, and monitoring to track the production, consumption and trade of HFCs require the necessary skills of the officers who will control and monitor their implementation</p> <p>Limited availability of low-GWP equipment and refrigerants in the target countries</p> <p>Shortage of skilled technicians and engineers trained in low-GWP technologies</p> <p>Some low-GWP refrigerants are flammable or require specialized handling, which may pose safety challenges</p>

	Absence of clear guidelines or incentives for adopting low-GWP technologies
Awareness	<p>Lack of knowledge of stakeholders, including consumers, private sector actors, and policymakers, on the environmental and economic benefits of low-GWP technologies</p> <p>Weak exchange of data and knowledge in the region among government officials and business</p> <p>Industries and technicians accustomed to using HFCs resist transition to new technologies due to unfamiliarity or perceived risks</p> <p>Absence of visible, real-world and tangible examples of low-GWP technologies remain stakeholders skeptical or unconvinced</p> <p>Low engagement to capacity building on Kigali amendment implementation measures of customs officers, environmental inspectors, and RACHP technicians</p>
Financial	Transition to low-GWP refrigerants and technologies requires investment not only in new equipment but also in service infrastructure and training of technicians

Project interventions scenario

The analysis of the cooling equipment market in the project countries shows their annual growth of more than 5% in the purchase of cooling equipment by the population in the last ten years, caused by the growth of income of the population and global warming that affected the countries. It is obvious that similar market trends are present for industrial equipment. The countries are the last in the region not to ratify the amendment, therefore the weak of measures and trade barriers provided for by the Kigali Amendment creates conditions for the project countries to become the main markets for equipment with refrigerants restricted for use by the Kigali Amendment. The project impact should completely change this situation.

Since prior to the start of the project implementation, none of the countries had ratified the Kigali Amendment, at the initial stage of the project implementation, the necessary measures will be taken to prepare the necessary documents for its ratification by governments (in the case of Ukraine and Kazakhstan, the needs assessment on drafts laws update and bottlenecks for the ratification laws adoption will be carried out). This will include conducting the necessary consultations with advocacy of stakeholders in parliaments and government institutions, as well as providing the necessary advisory and legal assistance in developing the necessary package of documents for making a decision on ratification. The project will aim to address gaps in countries' implementation of measures to implement the Kigali Amendment.

The activities included in the project will allow the participating countries to achieve compliance on HFC Phase down. First of all, it will be aimed at eliminating of countries weak described in the baseline scenario.

Ultimately, all of the above activities will lead to the achievement of GEB, which are set as an indicator of the success of the project. In addition, the project will allow achieving the targets set out in the Kigali Amendment. Azerbaijan and Ukraine are included in the main group of Non-A5 countries, Kazakhstan and Uzbekistan are included in group Other of Non-A5 countries, respectively, the following targets have been set for the countries by 2029:

	Azerbaijan and Ukraine	Kazakhstan and Uzbekistan
Baseline Formula	Average HFC consumption for 2011-2013 +15% HCFC baseline (CO ₂ eq)	Average HFC consumption for 2011-2013 +25% HCFC baseline (CO ₂ eq)
3rd reduction	2029-70% below baseline	2029-70% below baseline

The project will expand on the successes achieved in other projects with GEF funding and other donors in the region in ODS and waste management, particularly the ongoing GEF-5 project “Regional Demonstration Project for Coordinated Management of ODS and POPs Disposal in Ukraine, Belarus, Kazakhstan and Armenia” implementing by UNIDO, the EU Climate Package for Sustainable Economy provided to Ukraine and the Green Economy Financing Facility (GEFF) programme operates in the project countries under EBRD guidance.

The countries have a significant food processing, manufacturing and storage sector that uses a large amount of refrigeration equipment. Private companies have plans to upgrade and replace equipment. The project will involve these companies in its activities and aim to assist them in the transition to low-GWP and energy efficiency technologies by providing adequate assistance in training technicians and raising awareness. The activities and funding of companies to replace equipment and establishment of facilities using new low-GWP technologies will be considered as co-financing for the project.

Effective implementation of this regional project at the national level requires the support and the project ownership from key national stakeholder as it described below.

Stakeholders	Role in the project
Ministry of Environment	<p>Main executing partner</p> <p>National Ozone Unit</p> <p>National coordination entity of the Project</p> <p>Co-Chair of the Steering Committee</p> <p><u>Facilitation:</u></p> <ul style="list-style-type: none"> - Ratification of the Kigali Amendment and Development of National Kigali Implementation Plans, development, adoption relevant legislation, policies and regulations; - conducting baseline assessments of HFC consumption and alternative technologies in foam production, RACHP manufacturing, and servicing sectors; - strengthening of institutional capacities for HFC monitoring, reporting, and enforcement.
<p>Government entities</p> <p><i>Ministry of Industry</i></p> <p><i>Ministry of Energy</i></p>	<p>Member of the Steering Committee</p> <p><u>Supporting:</u></p> <ul style="list-style-type: none"> - development, adoption and political support of legislation, policies and regulations in areas of regulation in accordance with duties;

Custom entity Ministry of trade	<ul style="list-style-type: none"> - conducting baseline assessments of HFC consumption and alternative technologies in foam production, RAC manufacturing, and servicing sectors.
Companies (private or public)	<p>Piloting project activities:</p> <ul style="list-style-type: none"> - Retrofit industrial cooling infrastructure; - Collection and destruction of ODS; - Introduce low-GWP alternative technologies; - Enhance energy efficiency in manufacturing
Association of RACHP industry	<p>Member of the Steering Committee</p> <p>The association actively participates in the development of policies and regulations, provides advocacy to the RACHP sector enterprises on the process of development, adoption of legislation, policies and regulations.</p> <p>Supporting of conducting baseline assessments of HFC consumption and alternative technologies in foam production, RACHP manufacturing, and servicing sectors</p> <p>Serves as knowledge dissemination platform via its links with national RAC sector companies and equipment suppliers</p>
Education entity (university, training centers or similar)	<p>Capacity building and trainings operator:</p> <ul style="list-style-type: none"> - capacity building program implementation including: <ul style="list-style-type: none"> • training on safe use of alternative technologies (HC, CO₂, NH₃, HFC); • training programs for manufacturers; • training customs and regulatory authorities to prevent illegal trade of HFCs.

[1] <https://www.ccacoalition.org/short-lived-climate-pollutants/hydrofluorocarbons-hfcs>

[2] <https://www.ccacoalition.org/sites/default/files/resources/FINAL%20HFC%20CONSUMPTION%20TRENDS-corrected%20Aug2022.pdf>

[3] <https://ozone.unep.org/news/kigali-story>

[4] [https://www.irena.org/Innovation-landscape-for-smart-electrification/Power-to-heat-and-cooling/Status#:~:text=The%20global%20energy%20demand%20for,et%20al.%2C%202022\).](https://www.irena.org/Innovation-landscape-for-smart-electrification/Power-to-heat-and-cooling/Status#:~:text=The%20global%20energy%20demand%20for,et%20al.%2C%202022).)

B. PROJECT DESCRIPTION

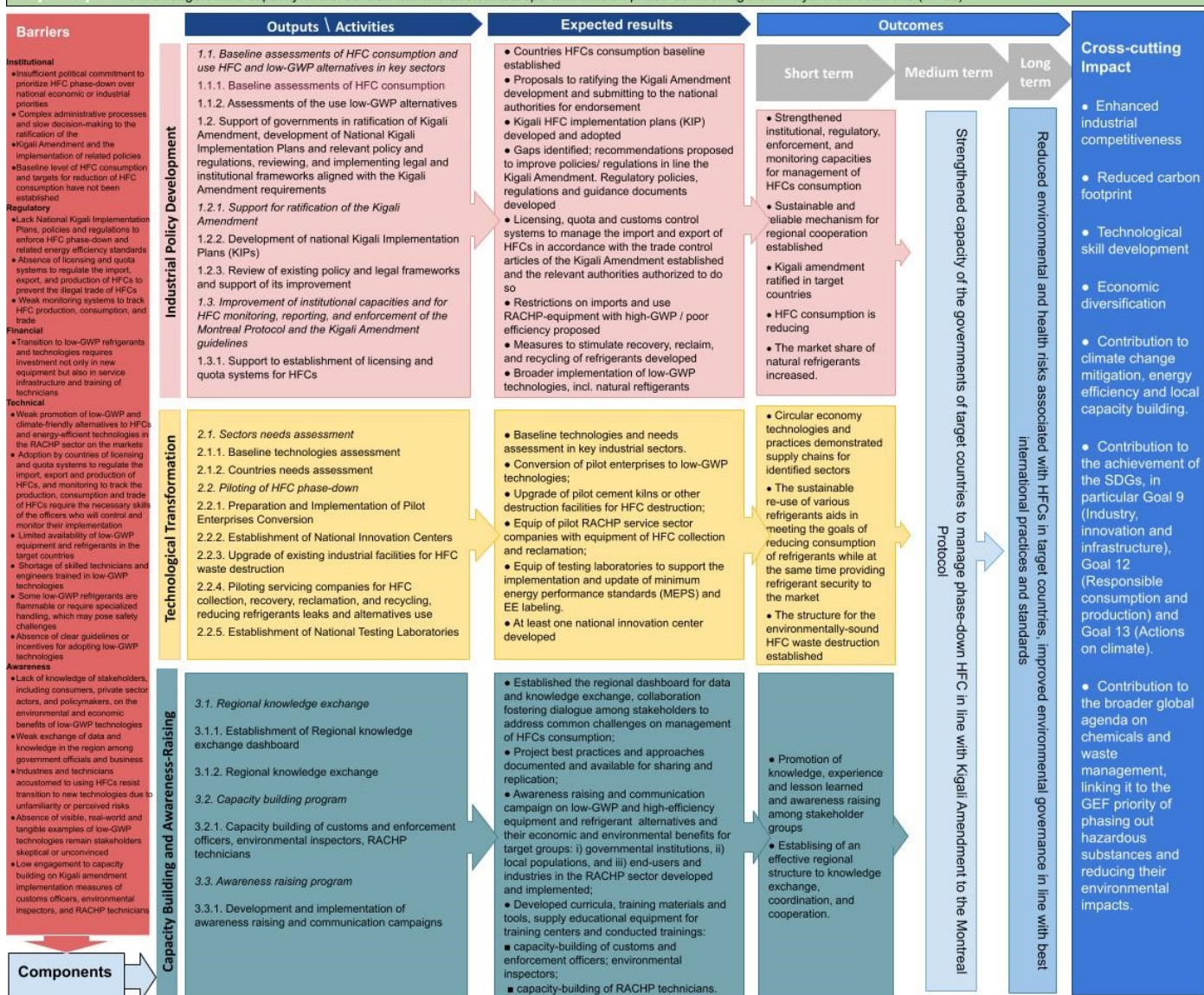
Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance [here](#)

The project aims to enhance climate action in Central Asia and Eastern Europe by the support of the Kigali Amendment ratification and phase-down of hydrofluorocarbons (HFCs) in target countries (Azerbaijan, Kazakhstan, Uzbekistan and Ukraine) through the strengthening of the institutional and industrial capacity, using the regional approach.

Therefore, the main **Objective** of the project should be the strengthened capacity of the governments of target countries to manage phase-down HFCs in line with Kigali Amendment to the Montreal Protocol. The project outcomes and outputs are in the Theory of Changes.

Project Objective: to strengthen the capacity of the Central Asia and Eastern Europe countries on phase-down of high-GWP hydrofluorocarbons (HFCs)



To achieve the objective, outcomes and outputs the project is proposed to be structured through three main Components as described below:

Component 1. Industrial Policy Development.

It focuses on institutional capacity building and includes support target countries in ratification and implementation of Kigali Amendment, as well as assisting governments in drafting, reviewing, and implementing legal and institutional frameworks on phasing down HFCs and improving energy efficiency of RACHP equipment. For countries that have already partially adopted measures to implement the Kigali Amendment, assistance will be provided in assessing regulation and policies for the need for improvement. This is expected to strengthen institutional, regulatory, enforcement and monitoring capacity to manage HFC consumption, establish a sustainable and reliable regional cooperation mechanism, reduce HFC consumption and increase the market share of natural refrigerants.

Output 1.1. Baseline assessments of HFC consumption and use HFC and low-GWP alternatives in key sectors.

These activities aim to conducting baseline assessments of HFC consumption, and assessments of the use HFC and low-GWP alternatives in foam production, RACHP manufacturing, servicing, and other sectors as

well. The first will be used to determinate exact amounts of HFCs to reduce according to Kigali Amendment schedule, the latter will show the whole picture of the use various refrigerants in key sectors.

Activity 1.1.1. Baseline assessments of HFC consumption

- Collection available historical and current data on HFC consumption.
- Mapping the distribution of HFC consumption by sector, region, and equipment type to identify high-priority areas for reduction and intervention needs.
- Analysis data on HFC consumption and establishment a baseline for HFC consumption for each project country, which will serve as a reference to meet reduction targets under the Kigali Amendment;
- Conducting of data validation workshops with national stakeholders to review and validate the consolidated national reports on HFC consumption.

Activity 1.1.2. Assessments of the use low-GWP alternatives

- Collection and analysis of available historical and current data on low-GWP alternatives consumption. Identification of trends of alternatives in the servicing and maintenance of existing RACHP equipment;
- Assessment of markets availability of low-GWP alternatives in each country and review of barriers to the widespread adoption of low-GWP technologies and propose strategies to overcome them.

Output 1.2. Support of governments in ratification of Kigali Amendment, development of National Kigali Implementation Plans and relevant policy and regulations, reviewing, and implementing legal and institutional frameworks aligned with the Kigali Amendment requirements.

These activities aim to support governments in ratifying the Kigali Amendment, developing robust implementation plans, and aligning policy and regulatory frameworks with international commitments. By addressing gaps and strengthening institutional capacity, the project will facilitate a smooth transition to low-GWP alternatives and improved energy performance in RACHP equipment. This one provides review of existing policy and legal frameworks on HFC management and energy performance of RACHP equipment (MEPS, EE labeling, etc.) to identify and fix the gaps in line with the Kigali Amendment.

Activity 1.2.1. Support for ratification of the Kigali Amendment

- Providing technical and legal assistance to governments in understanding the obligations and benefits of ratifying the Kigali Amendment.
- Facilitation of stakeholder consultations to build consensus and support for ratification of the Kigali Amendment.
- Assistance to the Governments of project countries in the preparation of necessary documentation for ratification of the Kigali Amendment to relevant national bodies.

Activity 1.2.2. Development of national Kigali Implementation Plans (KIPs)

- Conducting of consultations, initial and validation workshops for policy decision makers, industry, science, academia, CSOs and technical experts to ensure interests of stakeholders, integrate HFC phase-down targets with national climate change and sustainable development goals and effective development of KIPs.
- Assistance with involvement of international expertise to the Governments of project countries in the preparation of KIPs and necessary documentation for its governmental approval.

Activity 1.2.3. Review of existing policy and legal frameworks and support of its improvement

- Conducting comprehensive review of existing policies, regulations, and institutional frameworks related to HFC management and the energy performance of RACHP equipment and identification of gaps and inconsistencies in existing frameworks that may hinder compliance with the Kigali Amendment;
- Conducting of multi-stakeholder (governments, CSOs and industry representatives, technical experts) workshops and consultations to gather input and build consensus on possible policy and regulatory changes needed;
- Assistance to the Governments of project countries in the preparation of necessary amendments to existing policies or new regulations to align with the Kigali Amendment requirements, including HFC phase-down schedules and low-GWP refrigerant transitions for its future endorsement;
- Assessment of the project countries needs in promote of the Minimum Energy Performance Standards (MEPS), Energy Efficiency (EE) labeling, and refrigerant management protocols to energy-efficient and climate-friendly RACHP equipment;
- Assistance with involvement of international expertise to the Governments of project countries in the MEPS and relevant regulations development.

Output 1.3. Improvement of institutional capacities and for HFC monitoring, reporting, and enforcement of the Montreal Protocol and the Kigali Amendment guidelines.

Within this output will be established licensing and quota systems for HFC import-export and production will be proposed regulations to reduction of trade and the use of RACHP-equipment with high-GWP / low efficiency, as well as measures to motivate stakeholders to recovery, reclaim, and recycling of refrigerants, and to broader implementation of low-GWP technologies, including natural refrigerants.

Activity 1.3.1. Support to establishment of licensing and quota systems for HFCs

- Design a quota allocation mechanism to each participated country to control the volume of HFCs entering the market, ensuring compliance with national and international targets;
- Assistance to the Governments of project countries in drafting legal and regulatory provisions for the establishment of licensing and quota systems for HFC import, export, production, and consumption.

Component 2. Technological Transformation.

This Component primarily concerns the enterprises in HFCs-related sectors, such as foam production, RACHP manufacturing and servicing. Its expected outcomes are: to demonstrate green technology supply chains for identified sectors, and to assist in the establishment of mechanisms for sustainable recovery, reclamation and recycling of refrigerants, as well as environmentally sound destruction of waste HFCs.

Output 2.1. Sectors needs assessment.

Within these activities will be assessed baseline technologies and needs assessment in key sectors, such as foam production, RACHP manufacturing and servicing. The activities aim to provide a clear understanding of the current landscape and needs in key sectors, paving the way for targeted interventions to support the transition to sustainable and low-GWP technologies.

Activity 2.1.1. Baseline technologies assessment

- Conducting a comprehensive review of available technologies used in key sectors, including foam production, RACHP manufacturing, and servicing, HFC destruction and energy-efficient technologies in these sectors.

Activity 2.1.2. Countries needs assessment

- Conducting needs assessment of industry stakeholders, including manufacturers, service technicians, decision makers, and end-users surveys to collect data on sector-specific needs and barriers to adopting sustainable technologies and development report outlining baseline technologies, sector-specific needs, and recommendations for improvement for each project country:
 - insights on existing challenges, technological gaps, and opportunities for improvement;
 - analysis the readiness of manufacturers to adopt low-GWP refrigerants and energy-efficient designs;
 - identification of gaps in technology, infrastructure, and workforce skills;
 - review existing regulations, standards, and incentives and gaps in policy frameworks that may hinder the adoption of sustainable practices and technologies;
 - comparison of current national practices with best practices and international standards to identify gaps in technology, infrastructure, and skills;
 - actionable recommendations for addressing identified gaps, including technology upgrades, capacity-building initiatives, and policy adjustments.

Output 2.2. Piloting of HFC phase-down.

This output provides several activities, including: preparation and implementation of the conversion of pilot enterprises to low-GWP technologies; developing national innovation centers, at least one; assessment of the possibility of using cement kilns or other facilities for destruction of HFC waste; supplying equipment of HFC recovery and reclamation to pilot servicing companies in RACHP sector; supplying equipment for testing laboratories to support the implementation and update of minimum energy performance standards (MEPS) and EE labeling etc. Lessons learned through the piloting of HFC phase-down will be documented to share with the stakeholders.

Activity 2.2.1. Preparation and Implementation of Pilot Enterprises Conversion

- Development of criteria for selection of pilot enterprises for conversion to low-GWP technologies.
- Competitive based selection of pilot enterprises suitable for conversion to low-GWP technologies.
- Conducting feasibility studies (due diligence) to selected pilot enterprises.
- Providing technical assistance and procurement\supply\installation of equipment for the conversion process.
- Monitoring and assessment of the performance of converted enterprises to ensure compliance with low-GWP standards.

Activity 2.2.2. Establishment of National Innovation Centers

- Selection of national entities for establishment of National Innovation Center to serve as a hub for research, training, and knowledge sharing on low-GWP technologies.
- Procurement\supply of equipment to established centers with state-of-the-art facilities and tools to support innovation in the RACHP sector via research, training, and knowledge sharing.
- Facilitation collaboration between countries including stakeholders from industry, academia, CSOs and government through the national innovation centers.

Activity 2.2.3. Upgrade of existing industrial facilities for HFC waste destruction

- Conducting a technical, environmental and economic assessment and needs assessment of cement kilns capacities and other industrial facilities existing in the project countries for the destruction of HFC waste.
- Procurement\supply\installation of equipment for the selected facilities for the destruction of HFC waste.
- Providing technical assistance, training of technicians and operators on the proper use and maintenance of the equipment, development of guidelines and protocols for safe and environmentally sound HFC waste destruction.
- Piloting of HFC waste destruction and national accreditation of disposal sites.

Activity 2.2.4. Piloting servicing companies for HFC collection, recovery, reclamation, and recycling, reducing refrigerants leaks and alternatives use

- Development of criteria for selection of pilot servicing companies of the RACHP sector with equipment for HFC recovery, reclamation, and recycling, reducing refrigerants leaks and alternatives use.
- Competitive based selection of pilot servicing companies.
- Conducting feasibility studies (due diligence) to selected pilot servicing companies.

- Procurement\supply of equipment for HFC recovery, reclamation, and recycling, reducing refrigerants leaks and alternatives to pilot servicing companies.
- Providing technical assistance, training technicians and operators on the proper use and maintenance of the equipment, development of guidelines and protocols for the proper HFC collection, recovery, reclamation, and recycling, reducing refrigerants leaks and alternatives use.
- Monitoring and assessment of the activities of pilot servicing companies in the RACHP sector with equipment for HFC recovery, reclamation, and recycling, reducing refrigerants leaks and alternatives.

Activity 2.2.5. Establishment of National Testing Laboratories

- Development of criteria for selection of national entities to establishment of National Testing Laboratories.
- Competitive based selection of national entities to establishment of National Testing Laboratories.
- Conducting feasibility studies (due diligence) to selected entities.
- Procurement\supply of equipment for established National Testing Laboratories with advanced tools and devices to support the implementation and updating of Minimum Energy Performance Standards (MEPS) and energy efficiency (EE) labeling.
- Capacity building of laboratory staff to conduct proper testing and certification of low-GWP technologies.
- Ensuring laboratories are accredited to meet international standards.

Component 3. Capacity Building and Awareness-Raising.

This component aims to achieve the project goals through communication, education and awareness raising. Its expected outcome is promotion of knowledge, experience and lesson learned and awareness raising among stakeholder groups, including customs and enforcement officers, environmental inspectors, RACHP technicians, as well as governmental institutions, local populations, and end-users and industries in the RACHP sector. *Output 3.1. Regional knowledge exchange.*

This output entails establishing the Regional knowledge exchange dashboard IT-tool, which is an effective tool to coordinate countries' efforts and manage knowledge exchange within stakeholders. The dashboard will be used to conduct meetings and trainings for stakeholders from non-A5 countries with economies in transition from Europe and Central Asia (ECA non-A5 CEIT) on a regular basis; identify ECA non-A5 CEIT needs and priorities regular assessment; collect data, guides and manuals on RACHP, refrigerants, Montreal Protocol, national legislation etc. to share. To keep the dashboard functional after the project, an organization to handle will be identified, personnel training and equipment transfer will be conducted. A gender assessment will be conducted at the inception phase of the project. This assessment will gather initial data on existing and potential gender issues in the country context and the project focus area. It will identify knowledge gaps and support the development of gender strategies and activities that can be included in funding requirements and considered during implementation of the component.

Activity 3.1.1. Establishment of Regional knowledge exchange dashboard

- Development the Regional knowledge exchange dashboard IT-tool, placement, filling out by data and information and implement measures for its operation;
- Introducing the Regional knowledge exchange dashboard tool for target groups including industry stakeholders, manufacturers, service technicians, decision makers, and end-users. Provide them with the comprehensive capacity building, practical and theoretical trainings, and opportunities for knowledge enhancement and exchange via the Regional knowledge exchange dashboard.
- Support of operability of the Regional knowledge exchange dashboard and capacity building of the entity which will be selected to the dashboard operating and support after the project completion.

Activity 3.1.2. Regional knowledge exchange

- Establishment and facilitation of the Regional network of stakeholders represent following target groups: industry stakeholders, manufacturers, service technicians, decision makers;
- Conducting of study tours and knowledge exchange visits for stakeholders;
- Participation of stakeholders in international forums, conferences and exhibitions on low-GWP and high-efficiency equipment and refrigerant alternatives;
- Conducting of the project joint initial and final conferences to present the project achievements, project results, dissemination of experiences and lesson learns.

Output 3.2. Capacity building program.

Within this output, there will be developed curricula, training materials and tools, supplied educational equipment for training centers and conducted trainings on capacity-building of customs and enforcement officers, environmental inspectors, RACHP technicians, as well as workshop seminar on gender in RACHP sector.

Activity 3.2.1. Capacity building of customs and enforcement officers, environmental inspectors, RACHP technicians

- Design and development specialized curricula, detailed training manuals, guides, training materials and e-learning modules (interactive tools such as simulations and case studies to enhance practical learning) for:
 - customs and enforcement officers (identifying and handling environmentally harmful substances),
 - environmental inspectors (monitoring and enforcement techniques),
 - RACHP technicians (installation, maintenance, and repair of equipment, emphasizing environmental safety).
- inclusion of developed curricula in the work programm of National Innovation Centers (Activity 2.2.2) and conducting trainings and workshops for capacity building target groups;

- Conducting of workshops on promote gender equality and empower women in the industry gender in RACHP sector

Output 3.3. Awareness raising program.

Awareness raising and communication campaigns on low-GWP and high-efficiency equipment and refrigerant alternatives and their economic and environmental benefits for target groups: i) governmental institutions, ii) local populations, and iii) end-users and industries in the RACHP sector will be developed and implemented.

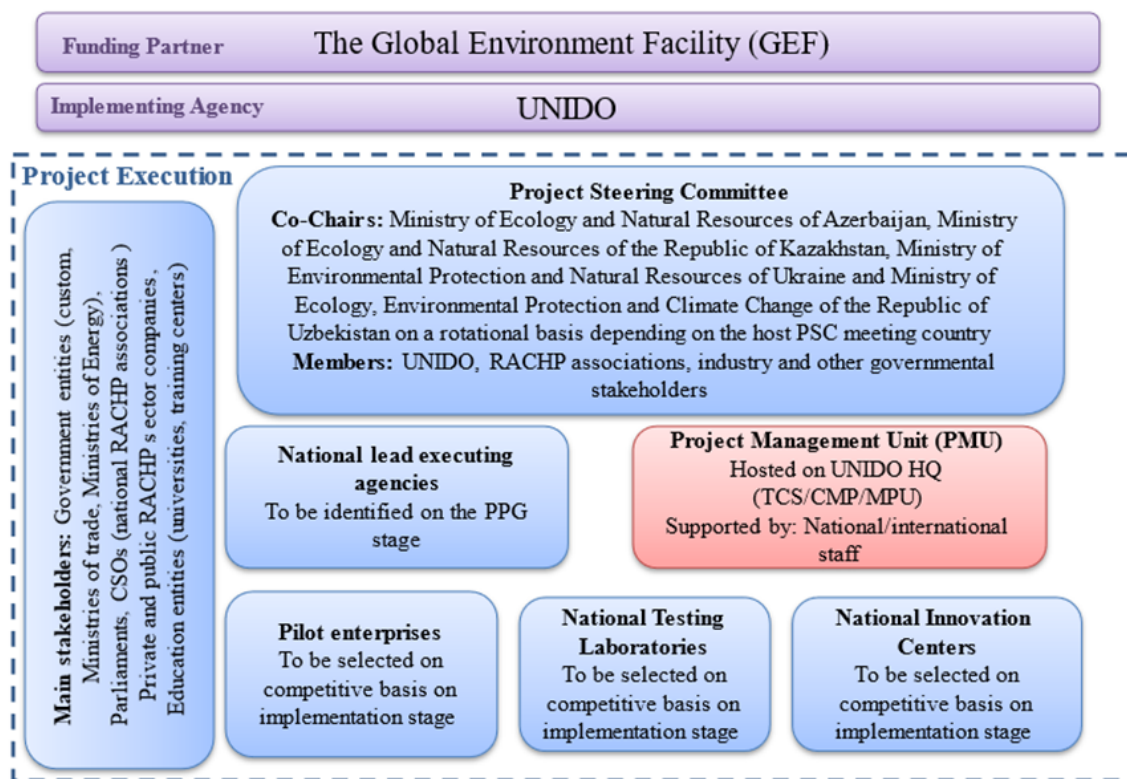
Activity 3.3.1. Development and implementation of awareness raising and communication campaigns

- Nationwide surveys in each of the project countries at the beginning and at the end of the project on various target groups' awareness on low-GWP and high-efficiency equipment and refrigerant alternatives and their economic and environmental benefits to identify gaps in knowledge and understanding of the Kigali amendment implementation process;
- Development of the awareness raising tools for each target audience. That will include: documenting and presentation of the project news and stories of success, design, release and dissemination visibilities and promotional materials, videos, billboards, media projects, mobile application development, promotion of topics in social networks and the media, including competitions for journalists, influencers and bloggers etc. Development of the Regional knowledge exchange dashboard should be an integral part of the strategy and will ensure the continuity of the accumulated knowledge;
- Stakeholders involvement in the celebration of International Day for the Preservation of the Ozone Layer, World Environment Day, World Climate Day, etc.;
- Development and implementation of Communication Strategies (for each of the project countries) to the Kigali amendment implementation process promotion;

Monitoring and Evaluation

The project implementation will be based on results-based management (RBM) approach. Throughout the project, lessons learned \ best practices will be documented and disseminated among both stakeholders and the population. To ensure the management for optimal results, the project will deploy a robust monitoring and evaluation framework, tracking progress and assessing its impact. Midterm and terminal evaluation reports will provide valuable insights into the effectiveness of the project's interventions, guiding future efforts. Gender mainstreaming action plan and environmental and social management plan will be elaborated and implemented.

Implementation arrangements of the project



UNIDO as the GEF Implementing Agency will be responsible for overseeing the project implementation, managing the overall budget, and supervising the project's execution. Project management unit (PMU) lead by a project manager will be appointed in UNIDO HQ to ensure proper project oversight and implementation.

Project execution will be led by national entities appointed by the Ministries of Environment, to be identified and confirmed during the PPG phase as an executive bodies for day-to-day management of the project in each of the project participated country. The PEE will be responsible for the full execution of the project in country under a contractual arrangements with UNIDO. In countries where such entities will not identified, national project coordinators will be hired and day-to-day management will be provided by UNIDO.

The Project Steering Committee (PSC) will be established by the Ministries for Environment and will include key project stakeholders from the Government, Associations of RACHP industry and UNIDO. The Ministries for Environment each of the project countries will chair the PSC meetings alternatively. The venues for the meetings will be on a rotational basis in the participating countries. The primary roles of the PSC are: (1) to provide overall guidance to the execution of the project; (2) to ensure good coordination among participating agencies and other organizations; and (3) to approve any substantial change, or request no-cost extensions for consideration by the GEF. The PSC will meet at least once yearly to review and monitor the progress of the project implementation and to approve the work plan for subsequent years.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

The ongoing GEF-5 project “Regional Demonstration Project for Coordinated Management of ODS and POPs Disposal in Ukraine, Belarus, Kazakhstan and Armenia” implementing by UNIDO aims to strengthening national legislation, capacities and capabilities in the framework of fulfillment of national commitments under the Montreal Protocol in Kazakhstan and Ukraine. In addition, the project creates technical capacities for the ODS destruction, recycling of refrigerants and cooling equipment. The project will continue to develop these capabilities and capacities of the countries participated in the new project.

Concepts of the GEF projects “Hazardous Waste Management and Policy Development Project for Ukraine (HWM-PDU)” and “Promoting circularity and resource efficiency in the electronic value chain in Kazakhstan” were approved in the GEF-8 cycle.

The project “Technical assistance in accounting and phasing out of emissions of Green House Gases (GHG), Ozone Depletion Substances (ODS) and Fluorinated Gases (F-Gases)” is a part of the EU Climate Package for Sustainable Economy provided to Ukraine for synchronization with the European Green Deal and has objective to contribute to the phasing out of ODS and further advancing climate change mitigation through preparing for gradual phasing down of hydrofluorocarbons (HFC) in the framework of Kigali Amendment to Montreal Protocol.

The Green Economy Financing Facility (GEFF) programme operates in the project countries. Through the GEFFs, the EBRD provides the investments for businesses and households to green technologies and climate adaptation. The Green Technology Selector provides a list of high-performing technologies and materials that have been assessed and pre-approved as eligible for GEFF financial support such as cooling equipment and RAC appliances.

The Montreal Protocol Network for Europe & Central Asia (ECA network) established in the framework of OzonAction, UNEP includes developing countries of the region. Representatives of the countries of economies in transition including the project countries usually attend the ECA network activities. The ECA network unites wide range of national and international stakeholders and provide access to guidelines and knowledge exchange on the Montreal Protocol implementation. The meetings, trainings and events under the networks cover topics on data reporting, restrictions on import and use of RACHP equipment with high GWP and/or poor efficiency, national plans for the collection, transport, and disposal of used or unwanted controlled substances and issues related to the installation/assembly sector, ect.

The countries participating in the project are donors to the Multilateral Fund for the Implementation of the Montreal Protocol.

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	0	0	0	0
Expected metric tons of CO ₂ e (indirect)	12790483	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)	12,790,483			
Anticipated start year of accounting	2025			
Duration of accounting	5			

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 9 Chemicals of global concern and their waste reduced

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
38.79	0.00	0.00	0.00

Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
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Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.3 Hydrochlorofluorocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
38.79			

Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
4			

Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.6 POPs/Mercury containing materials and products directly avoided

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.7 Highly Hazardous Pesticides eliminated

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.8 Avoided residual plastic waste

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	15,240			
Male	233,360			
Total	248,600	0	0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

The calculation of the Indicator 6.2 Emissions avoided outside AFOLU sector is based on the future commitments of the project countries under the Kigali Amendment for phase-down for 70% on the part for the component of the HFC by 2029. Since the calculation of the HFC baseline is the project activity and will be carried out during the project implementation, the latest available data on HFC consumption by countries for 2023 was taken for the calculation.

The calculation of the Indicator 9.3 Hydrochlorofluorocarbons (HCFC) Reduced/Phased out (ODP) is based on the future commitments of the project countries under the Kigali Amendment for phase-down for 70% of baseline by 2029, on the part for the component of the HCFC baseline - 15% (Non-A5 parties, main group - Azerbaijan, Ukraine) and 25% (Non-A5 parties, group Belarus, Kazakhstan, Russia, Tajikistan, Uzbekistan - Kazakhstan, Uzbekistan).

The calculation of the Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste comes from that support of governments of 4 participated countries in ratification of Kigali Amendment to Montreal Protocol on Substances that Deplete the Ozone Layer, development of National Kigali Implementation Plans and relevant policy and regulations, reviewing, and implementing legal and institutional frameworks aligned with the Kigali Amendment requirements are the aims of the project. Thus, it is expected that as a result of the project implementation, all 4 participating countries will adopt the necessary policy and legislation in this area.

Indicator 11 calculated based on the assumption that the project will cover of all employees of the RACHP sector by the awareness raising and communication campaign of the Component 3: Knowledge Management. The labor force employed in the RACHP sector was assessed that 0.5% of total labor forces in the project participated countries and 6.13% of women were involved in this sector.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Low	<p>Risks: The climate of the project's target countries varies from temperate (Ukraine) to very arid and continental (Uzbekistan, Kazakhstan) to even subtropical (Azerbaijan). Due to global warming air temperatures in target countries have increased significantly over the past few decades. For example, the average annual temperature in Kazakhstan increased by 0.32°C every 10 years.</p> <p>Frequency and duration of summer heat periods also increased. In Baku, which is the capital of Azerbaijan, the number of days with a maximum air temperature of 35°C and above in the months of June-August increased from 86 in years 1960-1990 to 365 in years 1991-2020. In 2019 in Uzbekistan the number of days with air temperatures above 38°C at the Tashkent meteorological station exceeded the long-term average value almost by twice.</p>

		<p>Further temperature increases, as expected, will bring an increase in the frequency of heatwaves. Other key stress factors associated with climate change include an increase in the number and intensity of extreme weather events, drought, glaciers melting etc.</p> <p>The most serious consequences of climate change include growing water scarcity and desertification. On the other hand, rising sea levels and the increase in severe storms will cause an increase the risk of flooding.</p> <p>Measures:</p> <p>All the target countries are committed to carbon neutrality and are taking appropriate measures. , which is intended to mitigate climate change caused by greenhouse gases.</p> <p>It should be noted that climate change is one of the drivers of the wider spread of refrigeration and air-conditioning equipment, the direct and indirect greenhouse emissions of which, in turn, contribute to even greater warming. The project is designed to address this problem through measures that help reduce the use of HFCs and transition to low-GWP technologies, as well as improve energy efficiency</p>
Environmental and Social	Moderate	<p>Risks: The adverse effects of climate change, such as extreme temperatures and heat stress, pose certain risks to the productivity of the project's interventions and workforce well-being. The project implementation, especially piloting HFC phase-down technologies, could be affected by extreme weather events, such as storms, floods and drought. Measures: Environmental and Social Management Plan (ESMP) will be developed at the PPG stage. The project activities on HFC phase-down, energy efficiency, awareness raising and training will contribute to increasing the resilience of target countries to climate change.</p>
Political and Governance	Moderate	<p>Risks: Political support is insufficient to advance the necessary regulatory and institutional framework. National procedures for ratifying the Kigali Amendment and adopting the necessary policies and guidelines will take a long time. Measures: The project envisages activities that will contribute to the reduction of this risk through the implementation of a communication strategy, capacity building programs and awareness raising for decision makers. Risk reduction should also be facilitated by the participation of governments in the regional Project Steering Committee and the exchange of experience and knowledge between governments of the countries participating in the project.</p>
INNOVATION		
Institutional and Policy	Low	<p>Risks: changes in national commitments to the Montreal Protocol and the Kigali Amendment, changes in priorities aimed at carbon neutrality and a green economy Measures: Analysis and monitoring of the political environment. Regular analysis of legislation: Monitoring changes in regulations related to the environmental agenda. Participation in a dialogue with regulators: Interaction with government agencies to understand their plans and influence.</p>
Technological	Moderate	<p>Risks: 1) Lack of national regulations, standards, or certification schemes for low-GWP technologies and HFCs alternatives. 2) Insufficient technical</p>

		<p>knowledge and skills among technicians, engineers, and end-users to implement and maintain low-GWP technologies. 3) Limited availability of low-GWP equipment, components, and refrigerants due to underdeveloped supply chains. 4) Stakeholders from the RAC sector may resist adopting new technologies due to familiarity with HFCs or skepticism about the performance of alternatives. Measures: 1) Collaborate with regulatory bodies to develop and enforce regulations for low-GWP technologies based on international practices. 2) Development and carry out of training programs and certification schemes for technicians and engineers. Development guidelines and manuals. 3) Work with suppliers to strengthen local supply chains, encourage to ensure access to necessary technologies. 4) Conduct awareness raising campaigns to highlight the benefits of low-GWP technologies. Sharing project success stories and pilot results to build confidence.</p>
Financial and Business Model	Substantial	<p>Risks: Participating countries start the project 6 years after the start of implementation of the Kigali Amendment. Thus, they have not been able to take advantage of the staged HFC consumption reduction, and by 2029 countries will have to achieve a one-time 70% phase-out of HFCs. This will high impact businesses and sectors dependent on cooling and refrigeration which participated countries makes it difficult to reduce of HFCs consumption on set level. Measures: development of Kigali Implementation Plans should take these circumstances into account and propose adequate measures and activities aimed at reducing such risks for both end users and the state in order to achieve the established level</p>
EXECUTION		
Capacity	Low	<p>Risks: The absence of the Baseline assessments of HFC consumption impacts the project logical design and the assessment of GHG emission reduction targets. Measures: The GEB baseline and targets related to the GHG emission will be considered at the earliest stages of the project during the Baseline assessments of HFC consumption. The specific mitigation measures ad targets should be included into Kigali Implementation Plans accordingly.</p>
Fiduciary	Low	<p>Risks: 1) Inadequate management of the project funds. 2) Project partners (beneficiaries) do not meet the GEF Policy the minimum fiduciary standards. Measures: 1) Regular monitoring of project implementation, conducting mid-term and terminal evaluation in place with the purpose of examining whether the project and activities meet appropriate technical, economic, financial, environmental, social (including gender equality), institutional and other relevant criteria. 2) Due diligence procedures for the project partners (beneficiaries) prior to funds or equipment transfer; regular monitoring system.</p>
Stakeholder	Low	<p>Risks: Insufficient stakeholders' involvement and/or poor coordination among stakeholders, especially on regional level. Measures: To prevent stakeholder disengagement, the project will maintain regular and effective communication through the communication campaign with all identified</p>

		stakeholders and develop a mutually agreed-upon stakeholder engagement plan including national and regional levels. Furthermore, the project will assign specific roles to each stakeholder to ensure their ongoing participation and commitment. Additionally, the project offers significant support to stakeholders, not only for the phase-out and disposal of HFCs but also for building technical and analytical capacities, enhancing its appeal to various stakeholders.
Other	Low	Risk: Different rates of the project implementation in participated countries. Joint implementation of the regional project activities will be influenced by national peculiarities of the legislation and implementation of the countries participating in the project. This may have an impact on the imbalance in time and resources for the implementation of project activities for each of the participating countries Measures: UNIDO, project management team and the national executing agencies must pay attention to the national specifics of legislation, decision-making, etc. of all countries involved when planning the project joint activities and make decisions taking them into account.
Overall Risk Rating	Moderate	The overall risk for this project is moderate. Careful monitoring of identified risks and effective implementation of mitigation measures will ensure that risks do not adversely impact the success and sustainability of the project results.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

The project is in line with the following objectives of the Chemical and Waste Focal Area of the GEF-8 GEF-8 Programming Directions:

Objective 2: Prevention of future buildup of hazardous chemicals and waste in the environment, particularly:

- Phase out of substances controlled by the Montreal Protocol for countries with economies in transition.

Objective 3: Elimination of hazardous chemicals and waste includes work under this objective will support implementation of environmentally sound management of stockpiles of waste/obsolete chemicals and products and material that contain or can emit POPs, chemicals of concern, HCFCs and HFC and mercury.

The proposed activities are in line with the following principals to determining the choice of the GEF projects in the Chemicals and Waste focal area:

- supports the Montreal Protocol for the countries supported by the GEF;

- cost Effectiveness - the potential chemicals reductions of a proposed activity relative to its
- costs will be a major factor in consideration of funding
- sustainability of the activities as well as contribute to sustained sound management of chemicals and waste;
- private sector engagement;
- prioritized in National Implementation Plans;
- Projects/Programs that promote/lead to Resource Efficiency and sustainable consumption and production approaches, like circular economy or sustainable material management;
- supports policy coherence across national institutions to manage hazardous chemicals and waste;
- builds on or uses existing networks, regional, national, and sub-national institutions including regional centers set up under the chemicals and waste conventions.

Moreover, the project will be aligned with the following the GEF policies:

1. Knowledge Management and learning Policy
2. Communication Policy
3. Stakeholder Engagement Policy
4. Policy Coherence Strategy

All countries of the project have joined the Montreal Protocol and are taking the necessary measures to implement it.

All countries in the project are committed to carbon neutrality and are taking appropriate measures.

Azerbaijan: 'Azerbaijan 2030: National Priorities for socio-economic development' was approved by the Decree of the President of the Republic of Azerbaijan and includes climate change mitigation as a national priority. The Government has made several climate commitments. These include reducing emissions and increasing green energy, increasing resilience to climate change

Kazakhstan. Strategy of the Republic of Kazakhstan on Achieving Carbon Neutrality by 2060 approved by the Decree of the President of the Republic of Kazakhstan of 2 February 2023 No. 121.

Ukraine: the Law "On the Basic Principles of the State Climate Policy", was adopted on October 8, 2024. The law outlines a set of measures for achieving climate neutrality by 2050.

Uzbekistan: increased its commitments in the updated Nationally Determined Contribution (NDC) and intends to reduce specific GHG emissions per unit of GDP for 35% by 2030 from the 2010 level instead of 10% provided for in the 1st NDC.

There are no policies of participated countries which might contradict the intended outcomes of the project.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations:

Private Sector:

Provide a brief summary and list of names and dates of consultations

Consultations were held during PIF development in October 2024 - February 2025 with all participating countries and their representatives according to the table below.

Yashar Karimov	Director Regional Environmental Centre for Caucasus, Azerbaijan Branch
Aisel Rsayeva	National Coordinator for Vienna Convention and Montreal Protocol, Head of subdivision, International Cooperation Division, Ministry of Ecology and Natural Resources of Azerbaijan
Saule Sabiyeva	Director of Department of Climate Policies, Ministry of Ecology and Natural Resources of the Republic of Kazakhstan
Aigulya Nurpeisova	Chief Expert of the Low Carbon Development Department of the Climate Policy Department, Ministry of Ecology and Natural Resources of the Republic of Kazakhstan
Zhansaya Mussabekova	Expert of Development Department of the Climate Policy Department, Ministry of Ecology and Natural Resources of the Republic of Kazakhstan
Dinara Meldekul	Chief Expert of the Low-carbon development division Climate Policy of the Republic of Kazakhstan
Zhanna Doronina	Director, 'Ekopromothod-AS' LLP, Kazakhstan
Natalia Zabolotna	First Deputy Head, Vinnytsia Regional Military Administration
Viktoriya Kyreyeva	Deputy Minister of Environmental Protection and Natural Resources of Ukraine
Andrii Telyupa	Deputy Minister of Economy of Ukraine
Nadiya Begun	Deputy Minister of Economy of Ukraine
Sergii Morgunov	Vinnytsia City Mayor
Olga Yukhymchuk	Director of the Department of European Integration, International Cooperation and Circular Economy Ministry of Economy of Ukraine
Volodymyr Voloshaniuk	Acting Director of the Department of European Integration, International Cooperation and Circular Economy, Ministry of Environmental Protection and Natural Resources of Ukraine
Bohdan Semenenko	Department of Industrial Pollution Prevention and Climate Policy of the Ministry protection of the environment and natural resources of Ukraine
Valentyna Vasylenko	Department of Industrial Pollution Prevention and Climate Policy of the Ministry protection of the environment and natural resources of Ukraine

Andrii Pishchulin	Director, JUKA-Invest. LTD
Olexandr Kobylka	CEO, 'GREEN COOL' LLC, Ukraine
Valentyn Kovalenko	Director, 'GREEN COOL' LLC, Ukraine
Jakhongir Talipov	Head of International Cooperation and Projects Department, Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
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UNIDO	GET	Regional	Chemicals and Waste	Ozone Depleting Substances	Grant	6,375,343.00	605,657.00	6,981,000.00
Total GEF Resources (\$)						6,375,343.00	605,657.00	6,981,000.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

200000

PPG Agency Fee (\$)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNIDO	GET	Regional	Chemicals and Waste	Ozone Depleting Substances	Grant	200,000.00	19,000.00	219,000.00
Total PPG Amount (\$)						200,000.00	19,000.00	219,000.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
Total GEF Resources					0.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CW-3	GET	6,375,343.00	50000000
Total Project Cost		6,375,343.00	50,000,000.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Ecology and Natural Resources of Azerbaijan	In-kind	Recurrent expenditures	400000
Recipient Country Government	Ministry of Ecology and Natural Resources of Azerbaijan	Grant	Investment mobilized	400000
Private Sector	RACHP sector companies, Azerbaijan	In-kind	Recurrent expenditures	10000000
Private Sector	RACHP sector companies, Azerbaijan	Grant	Investment mobilized	1669250
Recipient Country Government	Ministry of Ecology and Natural Resources of the Republic of Kazakhstan	In-kind	Recurrent expenditures	400000
Recipient Country Government	Ministry of Ecology and Natural Resources of the Republic of Kazakhstan	Grant	Investment mobilized	400000
Private Sector	RACHP sector companies, Kazakhstan	In-kind	Recurrent expenditures	10000000
Private Sector	RACHP sector companies, Kazakhstan	Grant	Investment mobilized	1669250
Recipient Country Government	Ministry of Environmental Protection and Natural Resources of Ukraine	In-kind	Recurrent expenditures	400000
Recipient Country Government	Ministry of Environmental Protection and Natural Resources of Ukraine	Grant	Investment mobilized	400000
Private Sector	RACHP sector companies, Ukraine	In-kind	Recurrent expenditures	10000000
Private Sector	RACHP sector companies, Ukraine	Grant	Investment mobilized	1669250
Recipient Country Government	Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan	In-kind	Recurrent expenditures	400000
Recipient Country Government	Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan	Grant	Investment mobilized	400000
Private Sector	RACHP sector companies, Uzbekistan	In-kind	Recurrent expenditures	10000000
Private Sector	RACHP sector companies, Uzbekistan	Grant	Investment mobilized	1669250

GEF Agency	UNIDO	Grant	Investment mobilized	123000
Total Co-financing				50,000,000.00

Describe how any "Investment Mobilized" was identified

investment Mobilized identified as an assessment of the activities of private companies in participating countries to modernize and replace refrigeration equipment in the food processing, production and storage sector with low-GWP and energy-efficient technologies, as well as government efforts to support these activities in connection with the Kigali Amendment and national plans for its implementation.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Ms. Ganna Onysko	3/4/2025	Ms. Ganna Onysko	+43 1 26026 3647	g.onysko@unido.org
Project Coordinator	Mr. Yury Sorokin	3/4/2025	Mr. Yury Sorokin	+43 669 14593624	y.sorokin@unido.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Emin Garabaghli	Head of Division of International Cooperation	Ministry of Ecology and Natural Resources of Azerbaijan	1/17/2025
Saule Sabiyeva	Director of Department of Climate Policies	Ministry of Ecology and Natural Resources of the Republic of Kazakhstan	10/15/2024
Volodymyr Voloshaniuk	Acting Director of the Department of European Integration, International Cooperation and Circular Economy	Ministry of Environmental Protection and Natural Resources of Ukraine	11/26/2024
Jakhongir Talipov	Head of International Cooperation and Projects Department	Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan	1/21/2025

ANNEX C: PROJECT LOCATION

Please provide geo-referenced information and map where the project interventions will take place

The project targets the whole of Azerbaijan, Kazakhstan, Ukraine and Uzbekistan. The specific facilities (destruction facilities for HFC destruction; pilot RACHP service sector companies of HFC collection and reclamation) will be selected in each country during the implementation of the project.



ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

250029_Central_Asia_and_Eastern_Europe_ES_Screening_signed

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Significant Objective 1	No Contribution 0	No Contribution 0	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET