Multilateral Fund for the Implementation of the Montreal Protocol

UNDP

PROJECT DOCUMENT

Georgia

Project Title: HCFC Total Phase-out Management Plan (HPMP) - Second (2nd) Stage

Project: 00104411 / Output: 00130228

Implementing Partner: Ministry of Environment Protection and Agriculture of Georgia

Start Date: 1 February 2022 **End Date:** 31 December 2030 **PAC Meeting date:** 27 June 2022

Brief Description

In 2011, Georgia adopted a two-phase strategy (Stage I and II) for the complete elimination of the HCFCs consumption. The focus of the phase-out strategy has been the gradual reduction of the HCFC consumption, since Georgia has never produced HCFCs. The HCFC Phase-out Management Plan (HPMP) of Georgia was approved at the 63rd meeting of the Executive Committee of the Multilateral Fund MLF) in 2011. It aims at a sustained and cost-effective phase-out of HCFCs through the implementation of non-investment and technical assistance components. The HCFC phaseout programme consists of two stages - Stage I covered the period of 2011-2020 and Stage II will be implemented in 2021-2030. The two-phase approach aimed at 35% reduction of HCFC consumption by 2020 and the overall consumption reduction rate of 97.5% by 2030, keeping 2.5 % of the baseline consumption for servicing needs until 2040. The present HCFCs phase-out plan for Stage II includes the strategy, actions and support needed to achieve 97.5% phase-out by 2030 allowing to have the 2.5% servicing tail during the period of 2030-2040. In 2030-2040 subsequent control steps will be taken to gradually reduce 2.5 % of the baseline consumption for servicing needs until complete phase out of HCFCs in 2040. Stage II is intended to serve as a direct implementation instrument of the country's policy and commitment to meet its obligations under the Montreal Protocol. Its architecture includes both non-investment and investment components. Since Georgia has successfully taken the challenge of the total phase-out of HCFC 142b, the component of the Strategy which has been focusing on the technical assistance in the solvent sector, has been completed and discontinued. Therefore, the remaining eligible HCFC consumption has centred around the servicing sector, and HCFC-22, in particular. The Phase-out plan for Stage II will place greater emphasis on the market transition in favour of more efficient low-GWP equipment that entails creating enabling environment with legislative changes, enhancement of safety standards, capacity building and other activities. The Plan will focus on further capacity building to support enhanced collection, recycling and recovery of HCFC/ODS that represents a challenge for the country. Growing a more effective HCFC re-use system, improving confidence of end-users in recycled/reclaimed HCFC-22 will also indirectly contribute to eliminating the problem of end-of-life emissions of ODSs. Policy, regulatory and institutional support, that is a key dimension of the Overarching Strategy, will also look at the Public Procurement (PP) with the aim to gradually eliminate dependence on HCFCs in the public sector and to promote zero/low GWP refrigeration alternatives in public procurement activities. Stage II will also reinforce the efforts in the area of development of professional standards of technicians and strengthening vocational education and training in Air Conditioning & Refrigeration. The Phase-out plan will pay particular attention to supporting the intersectoral dialogue and cooperation among the National Ozone Unit and Policymakers from various departments of the Ministry of Environmental Protection and Agriculture (MEPA), the Ministry of Economy and Sustainable Development (MoESD) and Ministry of Finances (MoF). The main objective of this activity is to align policies concerning the refrigerant transition with sectoral policies focusing on GHG emission reduction, energy-efficient and climate-friendly cooling, safety measures, building codes, etc. which may generate additional sources of investments and have a complementary positive effect in the domestic RAC market. At the overarching level, the Government of Georgia intends to explore the opportunities to reinforce the HPMP Stage II efforts through additional funding sought from the ongoing or planned climate action programmes. Demonstration projects will mainly focus on transition to modern/efficient zero-low GWP alternatives. Technical assistance to support good servicing practices in the refrigeration sector will continue to provide support in equipping law enforcement agencies and service centres, as well as vocational schools.

The project is funded by Multi-Lateral Fund to the Montreal Protocol (MLF) in amount of US $ 585,000 in 4 traches and covers the period from 2022 through 31 December 2030. The project is implemented under National Implementation Modality (NIM) with MEPA serving as implementing partner.

United Nations Sustainable Development Cooperation Framework (UNSDCF) 2021/2025 Outcome 5/ Country Programme Document (CPD) 2021-2025 Outcome 2: Communities enjoy greater resilience through enhanced institutional and legislative systems for environment protection, sustainable management of natural resources and disaster risk reduction

CPD Output 2.1: enhanced environmental governance and institutional capacity to enable rational, equitable and sustainable use of natural/land resources, to ensure conservation of ecosystems, use of innovative and climate-friendly technologies for inclusive green economy, energy efficiency and clean energy production, and make communities more resilient to environmental shocks

UNDP Strategic Plan 2022-2025 Output 1.1: The 2030 Agenda, Paris Agreement and other intergovernmentally-agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions

Project: 00104411 / Output: 00130228
Gender marker: GEN2
Management Arrangements: National Implementation Modality (NIM) with CO Support

Total resources required:	**USD 585,000**
Total allocated resources: First Tranche	**USD 190,839**
Montreal Protocol	**USD 190,839**
Unfunded budget: (Tranches 2-3-4)1	USD 394,161
In Kind Contributions	0

Agreed by:	Name/Title	Signature	Date
Ministry of Environmental Protection and Agriculture of Georgia	Mr. Otar Shamugia, Minister		10.06.2022
UNDP Georgia	Mr. Nick Beresford Resident Representative	DocuSigned by: [signature] 87B0654024D7437...	27-Jun-2022

[1] Funding for tranches 2,3,4 will be provided in due course per timeframe provided in Section VII Annual Work Plan (AWP).

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I. DEVELOPMENT CHALLENGE

1.1 Background

On 21 March 1996, Georgia became a party to the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, followed by the ratification of London, Copenhagen, Montreal and Beijing amendments to the Protocol by the country. Currently, Georgia is in the process of ratification of the Kigali amendment. Table 1 below shows details on the ratification of key international legal instruments by Georgia, related to the Vienna Convention and Montreal Protocol.

Table 1: Dates of ratification of key international legal instruments to phase-out ODPs in Georgia

Agreement	Date of ratification	Entry into force
Vienna Convention	The Cabinet of Ministers of Republic of Georgia by Decision N711 of 8 November, 1995.	19 June, 1996
Montreal Protocol	The Cabinet of Ministers of Republic of Georgia by Decision N711 of 8 November, 1995.	19 June, 1996
London Amendment	Georgia acceded to the London amendment by the Decision N376-IIs of 14 June, 2000 of Parliament of Georgia	10 October, 2000
Copenhagen Amendment	Georgia acceded to the Copenhagen amendment by the Decision N377-IIs of 14 June, 2000 of Parliament of Georgia	10 October, 2000
Montreal Amendment	Georgia acceded to the Montreal amendment by the Decision N378-IIs of 14 June, 2000 of Parliament of Georgia	10 October, 2000
Beijing Amendment	Georgia acceded to the Beijing amendment by the Decision N3877-II s of 07 December,2010 of Parliament of Georgia	07 December, 2010

Since 2006 the United Nations Environmental Programme for Georgia (UNDP Georgia) has been pro-actively assisting the Government of Georgia (GoG) in fulfilling ODS phase-out obligations. More specifically, jointly with Ministry of Environmental Protection and Agriculture (MEPA), it has been carrying out the Enabling Activities (EA) Programme for the Implementation of the Montreal Protocol. The Programme supports the GoG in meeting its obligations under the Montreal Protocol of the Vienna Convection, through implementing a number of horizontal and specific measures, including legal-regulatory and policy, institutional strengthening (IS)/capacity building (CB), ODS phase-out investment (demonstration projects), public awareness, coordination, monitoring and evaluation measures.

In 2011, taking into consideration that: i) Georgia is not HCFC producer, relying entirely on imports of these substances for the consumption by refrigeration and air condition (RAC)service and solvent sectors and, ii) by 2010 Georgia consumed 83.9 metric tonnes (MT) of HCFC22 in RAC servicing sector and 11 MT of HCFC142b in solvent sector annually as a baseline level, the GoG with a support of UNDP EA programme, adopted a two-phased (Stage I and II) HCFC Phase-out Management Plan (HPMP). The Plan aims at sustained and cost-effective phase-out of HCFCs and allows for 35% reduction of HCFC consumption by 2020, in its first stage, and, in its second stage, continuation of HCFC elimination until reaching the overall consumption reduction rate of 97.5% by 2030 and keeping 2.5 % of the baseline consumption for servicing needs until 2040.

The Stage I of the HPMP (HPMP-I), covering the period of 2011-2020 aimed at supporting commitment of Georgia to freeze HCFCs consumption in 2013 and gradually reduce consumption by 10% and 35% by 2015 and 2020 respectively.

Concrete HPMP Stage-1 targets for the implementation of the Montreal Protocol were as follows:

I. to freeze the HCFC-22 consumption in 2013 at a basic level of 83.1 mt equivalent to 5.21 ODP (ozone depleting potential) tonnes (equal to weighted average annual consumption in 2009-2010);
II. to reduce HCFC-22 consumption by 10% to 74.8 mt equivalent to 4.8 ODP tons in 2015;
III. to reduce HCFC-22 consumption by 35% to 54.0 mt equivalent to 4.8 ODP tons in 2020;
IV. to stop HCFC142b consumption since January the 1st 2016.

The overarching strategy of HPMP-I placed emphasis on HCFC import-export-transit and consumption in RAC servicing and solvent sectors and suggested implementation of a group of following horizontal and specific measures:

- formulation and implementation of the policy and regulatory framework to support the phase-out and control of the use of HCFCs;
- capacity building (CB) of law enforcement agencies such as Customs Department, under the Revenue Service of the Ministry of Finance, Environmental Supervision Department under the MEPA;
- capacity building of the refrigeration servicing sector, including design and implementation of the Code of Practice for reduction of HCFC emissions in daily business operations;
- improvement of the control over HCFC imports at Customs;
- provision of a technical support for the total phase out of HCFC142b consumption in the solvent sector;
- implementation of end-user Pilot Incentive Programme and associated awareness raising in the private sector on newer low GWP technologies for the RAC sector;
- coordination of the nation-wide HCFC phaseout efforts with country's climate change, chemical management, and energy policies.

HPMP-I It consisted of 6 components: i) policy, regulatory and institutional support; ii) training, capacity building and awareness; iii) demonstration projects; iv) technical assistance in improving servicing practices; v) technical assistance in the solvent sector; and vi) project implementation/monitoring/evaluation. The HPMP investment activities included: a demonstration project to facilitate the introduction of a new HCFC-free and low GWP technology in the RAC sector of Georgia, procuring necessary equipment for the Customs Department to enable HCFCs controls at the border check-points, purchase of tools and devices for the local companies to support modern practices in servicing RAC equipment and ensuring a closed HCFC circulation loop, and assistance to end-users in the solvent sector. Implementation of the Stage I currently is in its final phase and is expected to be concluded in 2022.

1.2 Situation Analysis

1.2.1 Legal-regulatory framework for HCFC management

In Georgia, issues of the Protection of Ozone Layer were first integrated in the 1996 framework Law on Environmental Protection. Specifically, its article #52 was fully dedicated to the protection of the Ozone Layer. Following the framework environmental protection Law, in 1999, an environmental media-specific Law on the Protection Atmospheric Air was adopted, whose article # 54 regulates the issues of the Ozone Layer Protection. Both Laws set general rules and principles for the protection of the Ozone Layer as well as regulatory requirements for the production, import-export and consumption of ODS. In addition, both laws designate the MEPA as a coordinating body for ODS phase-out. Since the adoption of framework laws regulating ODS management, various amendments to the national legislation and a number of new regulations (sub-laws) have been adopted. More specifically, since 2014, ODS import-export legislation has been improved and the HCFCs quota system has been introduced. In April 2016, new amendments were introduced into the existing laws on Environmental Protection, Atmospheric Air Protection, Licenses and Permits and Royalties on Licenses and Permits with a purpose of improvement of ODS import-export regulation and introduction of regulatory requirements for the RAC sector (certification etc). Relevant administrative sanctions were added to the Code of Administrative Procedures of Georgia in relation to violation cases of the existing legislation regulating ODS management. Moreover, through Government Decree #266 on the Approval of the Technical Regulation on the Issuance of Permits for Import, Export, Re-export and Transit of Ozone-Depleting Substances and the Distribution of the Annual Import Quota, permitting annual quota allocation for import, export, re-export and transit of ODS (banned ODS, for quarantine uses, HCFCs) was approved.

In a summary, the existing regulatory framework for the HCFC phase out in Georgia currently targets:

1. **the reduction of HCFC supply** through the HCFC quota and permit systems for the import/export of HCFC and codification system for Customs;
2. **the reduction of demand on HCFCs** by improved handling of refrigerants through the introduction of a certification scheme for technicians, and accurate reporting on consumption of HCFCs; and
3. **the reduction of emissions** through **a** venting ban, deployment of standards for safety and environmental requirements for RAC systems and the formulation and implementation code of practice for operation of RAC equipment. Below is a summary table of all legal acts regulating ODS (HCFCs included).

Table 2: National ODS phase-out legislation

#	Legal Act	Description
1	Law on Environmental Protection, Article 52. Protection of Ozone Layer, Article 8, paragraph 2 Environmental Education	Sets general principles for the protection of Ozone Layer and ODS regulation, e.g. requires introduction of special permit on ODS import; Designates LEPL Environmental Information and Education Centre as environmental training, retraining, certification and education authority.
2	Law on Atmospheric Air Protection	Authorizes only certified RAC and heat pump service technicians to perform their duties; Sets out validity term for certificate to be 3 years ; Designates the MEPA as certifying body; Makes mandatory for all RAC and heat pumps service technicians compliance with National Standard on Safety and Environment Requirements for RAC and Heat Pump Servicing(Above provisions are effective from 1 January 2018); Sets out permit systems and introduces permitting rules and conditions for ODS import, export, re-export and transit; Designates MEPA as permitting authority; Defines a list of permitting documentation, date of approval ODS import quota, application submission date, permitting duration, terms of permit validity, etc.; Obliges RAC owners and RAC and heat pumps service technicians working with 3 kg or more refrigerants to 1) keep registration journal on their activities and refrigerants amounts; 2) before 1 March of every year report to the Ministry of Environment on the amount of refrigerants consumed; Designates Environmental Supervision Department as law enforcement authority; Introduces mandatory certification system was introduced for technicians servicing RAC equipment - since January 2019 requires that technicians (individual practitioners and legally recognized companies) servicing RAC equipment to be certified (provision 541). A certificate can be obtained through an electronic examination and has a 3 years validity. Certificates are issued by the MEPA .
3	Georgian Law on Licences and Permits, Article 24.7[2]	Introduces permits for ODS import, export, re-export and transit
4	Georgian Law on Royalties for Licences and Permits	Sets amount of royalty on the permit for ODS import, export, re-export and transit
5	#266 Government Resolution (Decree) on the approval of Technical Regulation #266 on the Issuance of Permits for Import, Export, Re-export and Transit of Ozone-Depleting Substances and the Distribution of the Annual Import Quota	Permits and allocates Annual Quotas for ODS import, export, re-export and transit' Defines the list of ODS banned, regulated, designated for quarantine and pre-shipment uses, sets out the rule for annual quota allocation and rights and responsibilities of permit holders; Introduces a unified registry form for import, export, re-export and transit of ODSs. For efficient administration of the quota system and tracking down HCFCs from the moment of its import till its end-use; From 2016 specifies the rules for obtaining the permit for the import, export, re-export and transit of ODSs, allocation of quota, responsibilities of a permit holder, etc. The permit is issued by the MEPA which is carried out in line with the requirements of the Law on Licenses and Permits.
6	Code of Administrative Proceedings of Georgia	Sets administrative sanctions (penalties) for: uncertified RAC and heat pump servicing and repeated uncertified servicing; acceptance of uncertified service and repeated acceptance of uncertified service; absent registration journal or incorrect registration; non-compliance with reporting requirement; mon-compliance with National Standard on safety and environment requirements for RAC systems and heat pumps; violation of import, export, re-export or transit permit conditions; Illegal import, export, re-export and transit; Import, export, re-export or transit of banned ODS; non-compliance with the requirements of the SST 70 and refrigeration and heat pump equipment services.
7	Standard for Safety and Environmental Requirements for Refrigeration System and Heat Pump Services (# SST 70).	The standard was enacted in January 2018 on the basis of the amendment made to the AAP Law (541). The standard relates to the safety and environmental requirements in the installation, operation, maintenance, repair and disposal of refrigerating systems and appliances, maintenance of refrigeration systems and heat pumps, safety rules of personnel working with this equipment. It also includes the rules for handling fluorinated refrigerants, maintenance of refrigeration systems and heat pumps containing ammonia and flammable refrigerants.
8	The 2016 Waste Management Code (WMC	ODS refrigerants for disposal (ODS waste) are classified by the Law as hazardous waste (HW) and therefore its handling is subjected to the requirements set for the management of HW in general; Introduces the principle of Extended Producer Responsibility (EPR) for the management of specific waste streams, including Waste Electric and Electronic Equipment (WEEE)
9	2016 Government Decree #145 on Technical Regulation Concerning the Special Requirement for Collection and Processing Hazardous Waste	Specifies the rules for handling of HW.

	(that sets rules for collection, temporary storage, transport and treatment of hazardous waste).	
10	2016 Government Decree TR#89 on Technical Regulation Concerning the Rules for Hazardous Waste Transportation.	Defines special requirements for the movement of hazardous waste.
11	Government Decree #326 on Technical Regulation concerning the Management of Electric and Electronic Equipment in May 2020.	Producers/importers and retailers of RAC systems are responsible to manage waste that is generated from products they produce/import. Producers/importers of refrigeration and air conditioning (RAC) equipment are responsible to collect and recycle decommissioned RAC equipment. ODS contained in such RAC equipment has to be recovered, collected and managed as hazardous waste. This regulation is an important tool to address the issue of residual ODS waste emissions. Annual WEEE (Waste Electronic and Electric Equipment) collection, re-use, recycling targets will enter into force starting from 2023.
12	November 2013 and 2014 amendments to Government Decree # 184 "Permission on production, transport, import, export, re-export and transit of restricted chemical substances/goods"	Introduce the quota and permit systems for export/import/re-export and transit of ODSs. Further improvement of the quota and permit system was carried out in 2016 by amending the Law on Ambient Air Protection (#4951-IIS) and adopting the new Government Decree # 266 on Technical Regulation Concerning the Issuance of Permit on Import, Export, Re-export of ODSs and Distribution of Annual Quotas of ODSs that revokes Decree # 184. Extends the list of banned ODSs – as of May 2021 the export/import/re-export and transit of all CFCs, HBFC and HCFCs is banned with an exception of HCFC 22. Import/consumption of Methyl Bromide is permitted for quarantine purposes and pre-shipment applications only. Import of RAC equipment pre-charged with HCFC 22 (in a virgin form or as a component of refrigerant blends) is not regulated and is not counted in the HCFC 22 consumption calculations or quotas. It must be also underlined that as the study carried out in the Stage I showed, that majority of RAC equipment that was imported in Georgia during last 3 years does not contain R22 and its blends but is mainly based on HCFs. Furthermore, the regulation of equipment containing HCFC goes beyond the requirements of the Montreal Protocol. 2014 amendment establishes the quota system for allowed ODSs. Quotas for the bulk HCFC 22 are defined annually by 20 December by the Order of the Minister of Environment Protection and Agriculture in line with the HCFC phaseout schedule. The Decree #266 also sets the quota allocation rules as outlined in the following table. Decree # 184 (from 2013 to 2016) specifies the rules for obtaining the permit for the import, export, re-export and transit of ODSs, allocation of quota, responsibilities of a permit holder, etc. The permit is issued by the MEPA which is carried out in line with the requirements of the Law on Licenses and Permits.
13	September 2019 Customs Code	Is aligned with standards and requirements of the EU regulatory framework for Customs. Georgian Customs are applying commodity classification codes which is consistent with the Nomenclature under the International Convention on the Harmonized Commodity Description and Coding System (HS) and is detailed by eleven digits, taking into account the specifics of the national economy.
14	The 2017 Government Decree # 302 on Technical Regulation Concerning the Certification Rules of Technician Servicing RAC Equipment	Sets detailed rules and procedures conditions for the certification system (how exam is carried out, minimum scores needed for certification, issuance of certificate, appeal the review of exam results). It also defines the minimum qualification requirements for the technicians.
15	The 2017 Government Decree #304 on Technical Regulation Concerning the Record Keeping and Reporting Rules for Servicing Appliances Containing Refrigerants	Sets specific record keeping and reporting rules, including standardized format for recording refrigerant leaks, recovery and consumption and format for annual reporting. Currently data is entered manually in registration journal and annual reporting form. Once the electronic refrigerant management system is in place, the paper-based record keeping/reporting will be fully substituted by online electronic forms.
16	2013 Government Decree (#203) on Technical Regulation Concerning the Installation and Safe Operation of Refrigeration Equipment Based on Ammonia.	Introduces a set of rules for safe operation of refrigeration equipment

In 2014, by signing ***the Association Agreement (AA) with the European Union*** Georgia among other commitments took the responsibility to develop and implement measures related to ozone-depleting substances and fluorinated greenhouse gases, as part of the Climate Action (Article 310). In respect of HCFCs, part of obligations have been already met (i.e. establishment of a ban on the production of controlled substances, except for specific uses; establishment of a ban on the placing on the market and use of controlled substances; use of Methyl Bromide allowed for critical uses and Quarantine and Pre-shipment applications; establishment of a licensing system for the

import and export of controlled substances for exempted uses, establishment of procedures for monitoring and inspecting leakages of controlled substances).There are, however, requirements that are yet to be fulfilled. These include:

- the establishment of a ban on the placing on the market and use of controlled substances and for reclaimed HCFCs which might be used as refrigerants;
- definition of the conditions for the production, placing on the market and use of controlled substances for exempted uses; and
- establishment of obligations to recover, recycle, reclaim and destruct used controlled substances.

Monitoring system

Monitoring system for the use of HCFC is in place. Each importer is obliged to report on the shipment and sale of ODSs. Moreover, maintenance of logbooks on the use of refrigerants for servicing are mandatory for both - end-users and technicians. It sets the standardized format for recording refrigerant leaks, recovery and consumption and format for annual reporting. Currently a web-based electronic refrigerant management system is being developed to upgrade the system from paper-based reporting to electronic reporting. It will integrate platforms for registration and online reporting on the RAC systems charged with more than 3 kg refrigerants per installation. Legal changes to limit sale of ODSs only to certified technicians already developed and will be submitted to the Parliament of Georgia for ratification in the autumn 2021. This will significantly improve control on consumption of HCFCs.

1.2.2 Institutional framework

Several institutions within their respective competences facilitate the implementation of the Ozone Treaties at the national level. The primary responsibility in this respect lies with the **MEPA** that is the main institution in charge of the development and implementation of respective policies. Within the MEPA, **the Environment and Climate Change Department (ECCD) and its Ambient Air Service (AAS)** have a lead role in developing policies, emission inventories, control mechanisms and coordinating their implementation. The AAS also acts in the capacity of *the National Ozone Unit* (NOU), as it is responsible for coordinating the country's ozone protection efforts and works closely with the multilateral funds and implementing agencies engaged in the area of ODS management. The **Department of Environmental Supervision (DES)** among others is responsible to carry out the control over the compliance of ODS permit holders with the conditions of permit. It also controls the compliance with the obligations of RAC servicing and maintenance. **The Environmental Information and Education Center (EIEC)** is in charge of the Certification System for technicians. The EIEC also has the largest repository of environmental information including the educational and other material on ODS and ozone layer protection. **Waste and Chemicals Management Department** is in charge of setting and coordinating implementation of laws and policies for the management pf solid wastes, including hazardous wastes and specific wastes, subject to EPR (extended producers responsibility) regulations, inclusive WEEE. **Climate Change Service (Division) under the EECD** is in charge of setting and implementing climate change policies and programmes and acts as UNFCCC national focal point. It is crucial to enhance cooperation between NOU and Waste and Chemicals Management Department on the one hand, and between NOU and UNFCCC focal point on the other hand in order to implement complementary activities for ODS waste management and implementation of Kigali requirements regarding zero GWP alternatives.

Ministry of Finances, and, in particular, its **Customs Department** (CD) under **the Revenue Service,** is one of the key institutions in implementing *the Montreal Protocol*. The CD among others is also responsible for the detection of offences of customs legislation and has the right to suspend and revoke permits. CD plays an important role in implementing legislations concerning the ODS quota and ODS import/export/ transit permits. It possesses information on import/export of HCFC and HCFC-based equipment/products. Customs Department has a well established cooperation with the NOU.

National Statistics Office of Georgia (GeoStat) is one of the key data providers, that gathers statistical information on imported/exported goods, including RAC equipment. Data, however, are not collected specifically for the HCFC containing equipment. Nevertheless, information that is gathered by GeoStat, is clustered by customs codes that allows to retrieve the needed data as required.

Ministry of Economy and Sustainable Development of Georgia through its Division for Energy Efficiency and Renewable Energy Policy Promotion under the Energy Reforms and International Relations Department is responsible for developing and coordinating implementation of RE and EE laws and policies thus, it is an important stakeholder, when it refers to synergies between Vienna Convention and its Montreal Protocol and UNFCCC.

Parliament of Georgia together with its Committee on Environment is responsible for initiating, supporting and adopting new legal initiatives and holding various hearings and legal consultation with a broad array of stakeholders

The Georgian Association of Refrigeration and Cryogenic Equipment and Air Conditioning Engineers *(GARCAE*) is a non-profit organization that brings together service companies, end-users, scientists and technicians in refrigeration and heat-pump sector. The number of members of GARCAE currently exceeds 200. It serves as a bridge between private sector and state institutions and advises its members and other interested parties on nationally and internationally accepted standards, practices and guidelines for the refrigeration and air-conditioning. In January 2017, MEPA signed a Memorandum of Understanding with the GARCAE to facilitate the swift transition to the implementation of the certification process for technicians and their capacity building in reporting on refrigerant consumption/servicing equipment.

The Centres for Recovery and Recycling of Refrigerants (CRRR) were established in Tbilisi and Kutaisi. These centres have been founded under GARCAE and operated under its overall monitoring and guidance. The CRRR has a role in introducing Good Practices and demonstrating the use of recovery, recycling and reclamation equipment in strengthening the national HCFC re-use system in the servicing market. The CRRR is the only entity in Georgia that has a technical capacity to carry out recycling and reclamation of used ODS refrigerants according to the established international standards. Currently, the Centres however cannot perform RRR as they need to obtain environmental permit needed for performing these activities. Obtaining of the permit will be completed in the nearest future.

The Vocational Schools – currently, three national professional level educational schools offer vocational education programmes on modern Air Conditioning operating and servicing principles for technicians. The schools are equipped with basic tools/training equipment that demonstrates HCFC recovery aspects, RAC equipment repair and testing techniques, and distribute learning materials for students in Georgian language.
Business sector, and in particular the operators of RAC equipment in various economic sectors, importers of refrigerants, as well as retailers and RAC equipment, along with technicians are important stakeholders to advance the implementation of HPMP objectives.

Civil Society Organizations (CSOs) (such as CENN, RECC, Greens Movement, GEO, etc) and media (social and traditional) play an important role in awareness raising and advocacy about ODS and of ozone layer protection. In addition, eco-schools are annually engaged in awareness campaign ozone layer protection.

1.2.3 Progress achieved under HPMP-I

Activities. HCFC consumption data for HPMP Phase I indicates that target reduction of HCFC has been achieved. In 2019, it was below the target figure of 2.97 ODP tons (MP requirement) and amounted to 2.4 ODP (43.59 MT). The 2020 figure is lower the target figure (amounting to 0.85 ODP/15.5 MT), however, this figure does not reflect the actual consumption trend, as the consumption pattern in 2020 was considerably affected by the supply disruption caused by the COVID 19 pandemic and the economic slowdown. It must be also noted that the slight increase of the consumption in 2016-2019 is related to stockpiling and creating reserves in the industry. Nevertheless, the consumption figure is still well below the target ODP.

The HPMP Stage I supported Georgia in **advancing its national regulatory framework** for the management of ODSs and harmonization of national legislation with the EU legislation, including:

- **amending the ODS import-export legislation** - new amendments have been introduced to the laws on *Environmental Protection, Atmospheric Air Protection, Licenses and Permits and Royalties* to, inter alia, strengthen ODSs import-export regulations;

- **introducing the HCFC quota system** – respective amendments to the law and technical regulations have been developed and adopted;
- **establishing administrative sanctions in relation to violations of existing regulations on ODSs control** - new amendments have been made to *the Law on Administrative Offences;*
- **introducing regulatory requirements for mandatory certification of technicians** - creating RAC technician licencing and registration system, adopting competency standards as a part of the process to develop mandatory certification scheme which is being administered by MEPA's EIEC;
- **strengthening safety regulations for RAC equipment** – updating and adopting mandatory compliance with the *National Standard on Safety and Environment Requirements for RAC and Heat Pump Servicing*;
- **strengthening regulations for RAC sectors** – this included developing and enacting registration and reporting requirements for RAC operators and technicians;
- **introducing requirement for proper handling of ODS wastes** (a separate project on ODS waste) - technical measures for collection, transportation, recovery, recycling, reclamation, storage and disposal of ODS waste was reflected in the respective draft technical regulations.

Furthermore, a number of additional amendments to the laws and technical regulations were developed for the adoption in 2021 that will address: the ODS exempted uses; improvement of mandatory certification system for RAC technicians; regulation of sales of refrigerants and recovery, recycling and reclamation of ODSs; monitoring of refrigerant consumption through improved reporting system (electronic refrigerant management system). Details about the amendments to the laws that have already been introduced, as well as technical regulations that have been enacted, are provided in Chapter I.1.1.

In the area of **capacity building**, Georgia caried out measures to strengthen technical capacities of Customs officers, environmental inspectors and technicians servicing RAC equipment. In particular, 138 Customs officers received training in the ODS import-export control and 5 Customs officers received training of trainers; 48 Customs officers and 30 environmental inspectors have built skills in in-field application of refrigerant identifiers. Over 30 environmental inspectors have been familiarized with the HCFC22 based appliances/installations and their uses in various sectors and trained in conducting inspections in facilities operating refrigeration and air conditioning systems. Over 294 RAC service technicians improved their knowledge and skills in safety, technical and environmental aspects of servicing. They have been also informed about legal requirements concerning the consumption of ODS in the RAC sector, application and handling of low or zero GWP alternatives, including natural refrigerants, alternative technologies and energy efficiency measures.

To facilitate further capacity building for the enforcement of Montreal Protocol at national level, **e-learning materials (e-learning modules)** has been developed for the environmental inspectors of the Environmental Supervision Department of MEPA and the customs officers of the MoF. The learning materials have been integrated into the information repository of the EIEC (e-library) to provide continued and easy access to materials. In an effort to ensure sustainability of education and skill development in the RAC area, vocational education programmes have been introduced in three institutions (vocational schools "Spektri" and "Akhali Talgha" and the Technical University), where students can acquire needed knowledge, skills and competencies required to perform the actual job at the work place.

An establishment of the **web-based electronic refrigerant management system** is currently underway. The system is intended to improve the control of consumption of ODS substances. It will integrate platforms for both registration and online reporting on the RAC systems charged with more than 3 kg refrigerants per installation. Such a system will considerably strengthen the capacity of Georgia to enforce the ODS legislation and track down refrigerants from the moment of their import till end-use. For this purpose, a protocol on the exchange of data between the Revenue Service of the MoF and MEPA has been developed and cleared for adoption to facilitate proper functioning of the web-based monitoring system.

Activities of the HPMP Stage I focusing on the **technical assistance to support good servicing practices in the refrigeration sector** included the purchase of a set of tools and devices (e.g. double-stage vacuum pumps; portable leak detectors, and servicing tools, and multi-use refrigerant charging cylinders) to support the good servicing practices among the RAC service technicians. Eight (8) sets of tools for the RAC service technicians have been procured and delivered to certified technicians, demonstrating best results on the tests conducted after the trainings. Additionally purchased were the sets of the refrigerant recovery machine, refillable refrigerant cylinders,

vacuum pumps, manifold gauges, portable leak detectors and digital multimeters. Furthermore, refrigerant identifiers/analysers were provided to the Customs Department to aid their work.

Demonstration projects implemented in Georgia aimed at creating awareness of end-users about available technologies and innovations by demonstrating the benefits and advantages of modern equipment in terms of energy savings, cost savings from maintenance costs, etc. Demonstration projects supported through Stage I focused on the use of non-ODS natural refrigerant technologies (e.g., CO_2, ethane, ammonia) to replace existing HCFC-22 based air conditioning systems and retrofitting the equipment of dry-cleaning companies from HCFC142b to alternative solvents. In the solvent sector, TA projects were implemented in two enterprises operating in Tbilisi (capital) and Rustavi. New equipment operating on ozone-safe solvents was provided. The demonstration project on HCFC-22 based AC that is currently underway is being implemented at the *National Public Broadcaster* and is expected to be finalized by the end of July 2021. Demonstration projects have been implemented by partial co-financing of beneficiaries.

In 2019 a survey on the end-use application of HCFC-22 in economic sectors of Georgia has been carried out in order to assess the alternatives for implementation of demonstration projects to a more climate friendly refrigerants. To achieve the main goal of the survey the following activities have been undertaken such as:

- Identifying the economic sectors where the refrigeration systems with HCFC-22 as a refrigerant are used;
- Formulating suggestions and recommendations for the selection of a particular business, where Ozone and climate friendly alternative to R-22 could be introduced based on the scale of effect, installation and maintenance's cost efficiencies;
- Identifying challenges and opportunities for transition to zero- and low-GWP (Global Warming Potential) alternatives for various applications.

The survey clearly showed that selection of commercially available low GWP alternatives is a very important strategy. The data gathered will be used to select the most optimal format of private sector partnership for the implementation of demonstration projects in the RAC sector.

Throughout the implementation of the HPMP Stage I numerous awareness raising campaigns have been carried out. The target of these efforts, first and foremost, has been the personnel engaged in the ODS management (RAC technicians, RAC importers, customs officers), nevertheless attention has been paid to public awareness as well. Annually on the Ozone Day the MEPA/EIEC organized conferences and educational events for youth and general public.

The verification of HCFC phase-out progress was performed in 2016. The process included an assessment of all the pertinent aspects of national legislation, policies and procedures used to reach the commitments in reduction of the HCFC consumption, as well as detailed analysis of data of HCFC consumption that confirmed achieved result.

Budget: The HPMP Stage I was funded through 4 tranches. Tranches have been identified at the formulation stage of the HPMP in a "Tranche Implementation Plan", that is part of the Agreements.

As of 31 of December 2021, Georgia received a total of **500,900 USD** for the implementation of Stage I. Funds came in four tranches: **in 2011 - 200,000 USD, in 2015 - 150,000 USD** and **in 2018 - 119,400 USD and in 2021 - 31,500 USD**. Tranches II, III, and IV were disbursed upon submission of the narrative progress reports for the previous tranche and included the verification report, tranche implementation plan and relevant sources of information. All activities were expected to be completed within 2021, however delivery of procured equipment for RAC sector has been delayed and is expected to be completed in June 2022. Broadcasting Awareness raising videos on local media was also delayed and finalized only by end of January 2022. Remaining funds, USD 30,254.03 will be utilized by end of June 2022.

Table 3. Allocation of traches and disbursement status

Tranche (USD)	Total Budget Stage I	Approved/ Received	Disbursed As Of End of March 2022	Available Balance As Of End of March 2022	Planned Expenses	Expenses Total Including Planned	Disbursement rate As of End of March 2022 (%)	Disbursement rate including planned budget
I	200,000.00	200,000.00	200,000.00			200,000.00	100%	100%

II	150,000.00	150,000.00	150,000.00			150,000.00	100%	100%
III	119,400.00	119,400.00	117,174.26	2,225.74		117,174.26	98%	98%
IV	31,500.00	31,500.00	3,471.71	28,028.29	27,000.00	30,471.71	11%	85.71%
Total	**500,900.00**	**500,900.00**	**470,645.97**	**30,254.03**	**27,000.00**	**497,645.97**	**94%**	99.35%

1.2.4 Consumption patterns for HCFCs and their alternatives

Consumption: The Refrigeration, Air-conditioning and Heat Pumps sector in Georgia is the sole consumer of HCFCs and their alternatives. Artificial refrigerants are not produced in the country and their consumption entirely depends on the import of these substances. The analysis of collected data indicates that in Georgia only R-22 is currently consumed out of all other HCFCs. The dynamics of consumption of various refrigerants in Georgia is presented in table 4 below.

Table 4: Data on the consumption of refrigerants in Georgia in 2016-2021 in mt

Year	HCFC-22	HFC-134a	HFC-blends*
2016	25.20	82.20	**78.30**
2017	38.20	85.00	**78.50**
2018	34.30	72.68	**86.33**
2019	43.59	108.06	**95.34**
2020	**15.50**	**110.75**	**81.09**

Source: **CD/MoF**

** Imported HFCs for various applications include R-410A, R-407C, R-404A, R-32; Imported HFOs: R-1234yf in car air conditioners; Imported HCs include R-600a for domestic refrigerators, R-290 - in chillers and ammonia is only used in few beverage plants.*

In 2016 and 2017 the import of HCFC-22 was undertaken by 5 registered companies/importers (see Table 5) but in 2020 this refrigerant was imported by only one company – Nemera Ltd, which is the main importer of refrigerants in Georgia. Although, COVID-19 pandemics had a major impact on the refrigerant's imports, the overall downward trend of the demand on HCFC-22 is being observed irrespective of the pandemic situation. At the same time, it should be taken into account that 15.5 metric tons of refrigerant imported in 2020 is not enough to fully cover the annual consumption of this substance. The COVID 19 related slowdown of economic activities and partial disruption of supplies, the consumption of HCFCs in 2020 does not reflect the existing consumption trend. Due to further aging HCFC 22 based equipment, relative risks that HCFC emissions will increase is higher as a result of leakage. This will eventually drive the consumption of HCFC 22 slightly upward. Therefore, Stage II incorporates measures to address this risk and prevent potential increase of the demand on HCFC 22.

Table 5: List of HCFCs importers in Georgia

N	Name of the Permit holder	Permitted import quantity (metric tons)
	2016	
1	"TRG-Group" LLC	7
2	"Nemera" LLC	30
3	"Aliaska" LLC	6
4	"Technohause" LLC	0.4
5	"Refco" LLC	2.72
	2017	
1	"Geo-Frost" LLC	20
2	"Nemera" LLC	40
3	"Aliaska" LLC	8
4	"Technohause" LLC	0.5
5	"Refco" LLC	2.04

The sector application of HCFC-22 includes air-conditioning systems, commercial refrigeration, cold storage systems and transport refrigeration. There is no HCFC consumption in two sub-sectors: domestic refrigeration and mobile air-conditioning.

The largest segment for the consumption of HCFCs is the air-conditioning sub-sector. In the retail sector of Georgia, handicraft refrigeration units assembled on the basis of self-contained air conditioning units manufactured far in the past in the former Soviet Union are very common. These devices are still readily available and cheap. Their installation also does not require large financial investments due to the simplicity of its design. The use of such installations, however, is unjustified today, since they are obsolete in terms of their design. The HCFC-22 leakage rate of such installations is very high, and the energy efficiency is low.

As for the factory-made air-conditioning equipment operating on HCFC22, most of them were imported in Georgia before 2010. They both are a source of refrigerant emissions into the atmosphere, firstly, due to their age and, secondly, due to the lack of proper maintenance by professional technicians that are scarce on the labour market.

Before 2008 the commercial refrigeration sub-sector had been mainly represented by CFC equipment. The greater part of the equipment has been retrofitted or replaced from CFC-12 to HCFC-22 after the terminal phase-out of CFCs. A number of activities were implemented through assistance of MLF (Multi-Lateral Fund – Montreal Protocol). For example, 12 companies transferred their installations from CFC-12 to alternative refrigerants in frame of the End-user incentive project in 2005. This project was recognized as exemplary by the Montreal Protocol and the implementing agencies: the Ministry of Environment Protection of Georgia and other national partners received letters of gratitude.

Replaced commercial refrigerators such as refrigerating rooms, refrigerated chambers, display-cases and etc. have been mainly equipped with HCFC-22 hermetic condensing units but now the leakage is quite high because of equipment being obsolete and due to its poor maintenance.

Thus, the success of reducing ODS emissions into the atmosphere depends on how quickly HCFC-containing equipment is replaced with new equipment based on zero- or low GWP refrigerants. It is clear that without implementation of effective, coordinated actions the losses of HCFC-22 from the Georgian RAC sector bank will grow in the future. In general, demand for the import of refrigerants is determined by the market, the market is guided by the needs of end users, and the end users purchase devices that are offered by importers/suppliers. Thus, there is a closed circle, which should always be taken into account in order to avoid crisis situations both with the use and maintenance of HCFC equipment.

Sector distribution: According to questionnaire survey carried out under tranche 3 of HPMP-I, there are five types of installations where HCFC-22 is still used in Georgia. These are domestic air conditioning, industrial air conditioning, retail refrigeration, food production and transport. There is no information about such a new installation imported in the country during last 5 years. Table 6 below shows the sector distribution of consumption of HCFC-22 and its alternatives.

Table 6: Refrigerant consumption by the RAC sub-sectors in 2016-2019

N	Consumer	Quantity of refrigerants in MT		
		HCFC 22	HFC 134a	HFC blend*
		2016		
1	Service companies	9.7	47.5	**30.8**
2	Individual technicians	5.4	22.86	**17.5**
4	Wine producers	1.7	1.13	**4.1**
5	Soft drink producers	2.2	2.21	**3.1**
6	Public establishments (Museums, Libraries, Concert halls etc.)	6.7	8.5	**7.2**
	Total in 2016	**25.7**	**82.2**	**62.7**
		2017		
1	Service companies	14.5	45.3	**38.3**
2	Individual technicians	9.8	25.4	**22.6**
4	Wine producers	0.5	1.5	**4.0**
5	Soft drink producers	3.1	4.8	**3.5**
6	Public establishments (Museums, Libraries, Concert halls etc.)	10.3	8.0	**10.1**
	Total in 2017	**38.20**	**85.00**	**78.50**
		2018		
1	Service companies	11.2	33.9	**42.5**
2	Individual technicians	8.0	23.4	**28.2**

4	Wine producers	-	1.3	**3.5**
5	Soft drink producers	1.9	5.0	**2.83**
6	Public establishments (Museums, Libraries, Concert halls etc.)	13.2	9.08	**9.3**
	Total in 2018	**34.30**	**72.68**	**86.33**
		2019		
1	Service companies	15.5	45.7	**48.5**
2	Individual technicians	11.7	29.5	**32.1**
4	Wine producers	1.5	1.0	**3.0**
5	Soft drink producers	2.6	7.8	**3.3**
6	Public establishments (Museums, Libraries, Concert halls etc.)	12.29	24.06	**8.44**
	Total in 2019	**43.59**	**108.06**	**95.34**

** data on the quantities of refrigerants by blend types is not available. They are imported under the same customs code that make it impossible to distinguish blend types.*

It was impossible to collect accurate data on the refrigerant consumption for 2020 due to the COVID-19 lockdown in Georgia. The majority of respondents of questionnaire survey said that they did not use refrigerants in 2020, while according to the sellers' information about 22.5MT of HCFC-22 was put on the market last year. Therefore, it is very important to introduce an electronic reporting system on time and limit the sale of refrigerants to uncertified technicians.

As mentioned above, there are still many commercial, industrial and transport-based RAC equipment in Georgia that uses HCFC-22. The HCFC installations operate in food industry, hotels, hospitals etc. One of the largest segments of HCFC-22 equipment is air conditioners (window, split systems, etc.). Split air conditioners are used for domestic purposes for comfort cooling in summertime and for heating in fall to mild wintertime. Refrigerant charge is small in such units – around 0.8kg but the number of units is still large in the country and the frequency of their service is also high, so according to the information received from the service companies/individual technicians up to 10MT of HCFC-22 were used in 2016-2020 in this particular subsector.

Chillers mainly represent the industrial air conditioning sub-sector. They are used to ensure the required air quality in hospitals and pharmaceutical production, at television and radio studios, at catering establishments, etc. Unfortunately, the installations are old and they need frequent repairs including refill.
Direct refrigeration systems provide temperature and humidity conditions of refrigerated rooms, trade cabinets and display-cases in the retail refrigeration and food production subsector. Some of them are factory-made but many are hand-made with the re-profiling of refrigeration units of window-type air conditioners for retail uses, and as it is noted above the introduction of such units was also facilitated by the previous projects carried out under the Montreal Protocol for transferring installations from CFC-12 to HCFCs. Cooling capacity of such kind of refrigeration systems is in range 3÷185kW and refrigerant charge 3÷150kg.

A typical HCFC-22 charge in a refrigeration system of the transport, for example, used for transportation of medicines at controlled temperature, is about 6 kg per unit. Although there are already few HCFC refrigerated trucks in operation in the country today and their number is gradually decreasing due to the high cost of their maintenance. An approximate estimate of HCFC-22 consumption by different sub-sectors depending on the installed capacity of refrigeration system is provided in table below.

Table 7: Estimation of HCFC-22 consumption depending on installed capacity*

Sub-sector	Estimated number of units	Estimated number of units totally refilled and/or topped up per year	Estimated total HCFC use in MT
Commercial refrigeration	20,300	6,090	**13.4**
Split and unitary A/C systems	28,000	5,733	**8.6**
Industrial/Cold stories	3,900	975	**15.6**
Chillers	200	65	**6.0**
Total:			**43.6**

**The study was conducted by the Georgian Association of Refrigerating, Cryogenic and Air conditioning Engineers NGO in 2019*

Regarding the service of the HCFC-22 installations, there are three types of end-user groups that have been identified during the survey: i) End-users which have their own certified technicians, ii) End-users which have a long-term contract with an external RAC service company, and iii) End-users using the services of randomly selected technicians, being the largest risk zone in terms of ODS emissions into the atmosphere.

Further, the national phase-out of HCFC-22 has been determined as largely dependent on market prices for it and its alternatives. The current prices for refrigerants are presented in table 8 below.

Table 8: Prices for refrigerants

#	Refrigerant	2016	2017	2018	2019	2020
1	HCFC-22	6.0	6.3	6.3	9	12.42
2	HFC-134a	6.0	6.3	6.3	7	8.87
3	HFC-404A	7.2	7.9	7.9	9	9.93
4	HFC-407C	7.2	7.9	7.9	10	12.42
6	HFC-507A	19.9	11.8	11.8	13	10.64
8	HC-600a	13.9	13.8	13.8	13	12.42

As it can be seen from the table above, in 2020, the price of HCFC has reached its historical high point, that is likely to be attributed to the disruption of supply caused by the COVID 19 pandemic; however, there is a visibly clear upward trend there in its increasing cost. The prices of other refrigerants have similarly shown an upward trend. Further market research studies will continue in the future.

1.3 Lessons Learned

Usually, the process of development of new policies, legal and regulatory framework, their review by government institutions and adoption is time-consuming process, engaging a wide range of stakeholders and therefore, in practice, it takes longer than planned. This was a case for HPMP-I. Moreover, significant institutional restructuring during 2017-2018, resulting in the merger of Ministries of Environmental and Natural Resources Protection and Agriculture into one government entity - MEPA, caused delays in implementing HPMP activities until the completion of staff re-recruitment and relocation into the building of the Ministry of Agriculture and, full operationalization of communication lines between departments and divisions within MEPA and across line ministries. Finally, COVID-19 lockdown slowed down implementation of project activities. Thus, it is advisable that in the planning of HPMP Stage II, a more flexible timeframe is considered for respective activities to prevent any potential setbacks in the implementation of the schedule. Regardless, an application of adaptive project management approach will be continued under HPMP Stage II (HPMP-II), as an effective tool for mitigating risks and adjusting to changing circumstances.

The experience of implementing HPMP-I investment component (demonstration projects) showed that in Georgia the introduction/procurement of advanced RAC equipment (technologies based on low GWP alternatives) has faced challenges as local suppliers did not yet have an authorized distributor status to have an organized import of such equipment. Absence of such status deprives them of the possibility to import this equipment without advance payments. Given the RAC equipment with low GWP alternatives are still considered as more expensive technologies, local suppliers, which mainly belong to the category of medium size enterprises, do not operate with sufficient financial resources to commit for the high-cost advance payments. This situation is further complicated by the current low awareness and, therefore, notably weaker interest of manufacturers of low-GWP technologies to enter smaller markets, like in Georgia. In a view of this, it is advisable that future demonstration projects in Stage II keep options open for a local assembly of imported components to help reduce barriers to adopt newer technologies. To address the challenge in a more systemic way, Stage II will also have an in-depth look at the barriers for the access to low-GWP technologies and how to overcome them as well as will carry out targeted awareness campaigns on low-GWP alternatives.

As the experience showed, co-financing pledges from beneficiaries of demonstration project increases the effectiveness of projects and sustainability of project results. Therefore, HPMP-II investment components will continue to keep a co-financing obligation. It should, however, be taken into consideration, that most of local businesses in Georgia, including RAC sector, especially small to medium-size enterprises, due to overall economy development level, have weak financial performance/status and it is not easy get cash co-financing for the

demonstration projects. Besides, environmental awareness of local institutions and in particular, businesses is low and the concept of Corporate Social Responsibility (SCR) in not applied as a common practice. Therefore, willingness to participate in demonstration projects is low among businesses. Engaging public institutions, especially such institutions who have tools for promotion of their activities (e.g. GPB) as demo project proponents might be a good example for replication. However, end-users from business sector may be more appropriate target groups for replication among other business companies, since they represent major users of CHCFs. Thus, takeaway messages from above lessons are as follows: i) before designing and implementing demonstration projects, it is necessary to carry out detailed market research of end-users, including willingness to participate and the companies' financial status. This can be done through call for expression interest and/or vis-à-vis consultations with end-users; ii) ex-ante and ex-post targeted awareness and advocacy campaigns should be carried out for end-users in order to increase their awareness and interest to participate in demo projects as well as to replicate project results among businesses, other than project proponents; iii) clear and detailed eligibility criteria, including financial performance criteria should be set and, detailed evaluation of candidate companies should be carried out before selecting project proponents; iv) most importantly, more flexible co-financial requirements may be considered for co-financing including incremental operational costs (e.g. equipment operations and maintenance, training of personnel on equipment maintenance, etc.). Apart from all above, MEPA and UNDP CO should enhance consorted efforts for resource mobilization from international donor organizations working in the areas of industrial efficiency, environmental and energy performance of industries and SCR as well as should strengthen business capacities to attract investments.

Focusing on low GWP alternatives in CB, awareness raising and investment measures under HPMP-I can be considered as a good practice for crating greater synergies between Vienna Convention and UNFCCC, leading to leapfrogging effect for implementation of Kigali amendment. This practice will be furthered in HPMP-II. However, application of energy saving measures (e.g. Head pressure control; Multi-compressor on-off control and/or compressor variable speed control; Evaporative cooling; Liquid pressure amplification; Condenser heat recovery; Condenser heat upgrade using heat pumps; Suction pressure control; Variable speed on one compressor; Defrost on demand; Evaporative cooling, etc.) and/or alternative technological processes (e.g. air cycle technology for low temperatures and combined heating and cooling; waste heat recovery for refrigeration and power generation; ground cooling, etc.) or combination of both can be also deemed as innovative approaches, taking into consideration market availability, technological difficulty and costs (CAPEX, OPEX and amortisation) of selected technologies and technological processes. While exploring alternative technologies, South-South cooperation can be applied as a tool for bridging Georgia with similar more experienced countries.

With respect to the HCFC re-use, one of the important lessons learned in relation to the RRR centres is that currently the demand for their services, in contrary to original expectations, has stayed relatively low. Competitive price on virgin refrigerants does not incentivise the end-users to carry out recycling and reclamation of HCFC refrigerants. The Stage II therefore, will examine how to further incentivize the RRR scheme in Georgia. The next round of investments in this area will be strengthening the system in the last remaining decade of the HCFC phase-out with further limits on the importation of HCFCs taking effect, and correspondingly, with increasing prices for newly produced HCFCs.

The Centres for Recovery and Recycling of Refrigerants (CRRR), that were established in Georgia with the support of *the Montreal Protocol*, are the only entities in Georgia that have technical capacity to carry out recycling and reclamation of used refrigerants according to established international standards. The Centres however currently cannot legally carry out this very function, as they do not possess the Environmental Permit for performing recovery, recycling and reclamation of used refrigerants. Support needs to be provided to ensure that the capacity of centres is utilized at fullest and the Centres are in full compliance with the national legislation.

Concerning end users, as questionnaire survey of refrigerants consumption showed, end-users applying the services of randomly selected technicians is the largest risk zone in terms of ODS emissions into the atmosphere, and any risk reduction should start as related to increasing awareness of the related end users, as well as extending the certification schemes to such individual technicians to keep increasing their job skills and on-the-job performance, taking into account UNDP's "green recovery" and "no one left behind" objectives[2].

2 "Green recovery" has been adopted by countries to refer to packaging environmental and economic reforms with plans to recover from the pandemic. 'No one will be left behind' means taking explicit action to end extreme poverty, curb inequalities, confront discrimination and fast-track progress for the furthest behind.

In general, the success of reducing ODS emissions into the atmosphere depends on how quickly HCFC equipment is replaced with new equipment based on zero- or low GWP refrigerants. It is clear that without implementation of effective, coordinated actions the losses of HCFC-22 from the Georgian RAC sector will grow in the future. In general, demand for the import of refrigerants is determined by the market, the market is guided by the needs of end users, and the end users purchase devices that are offered by importers/suppliers. Thus, there is a closed circle, which should always be taken into account in order to avoid crisis situations both with the use and maintenance of HCFC equipment. Global trends indicate at significant increase in HFCs demand and consumption that may lead to the accumulation of HFCs. Therefore, incentives for promoting low GWP technologies gain critical importance. HC-based small-sized compressors could be useful in the retail sector, however, the work has to be done to strengthen supply chains through the private sector. In Stage I, Georgia sought synergies with the implementation of commitments under the UN Framework Convention on Climate Change (UNFCCC). The country has taken major efforts for upgrading policies in several key sectors to advance greenhouse gas emission reductions. In those parallel tracks, the updated/new policies among others promote efficient and effective use of energy by introducing energy efficiency labelling for equipment and energy efficiency action plan. Energy performance standards for building sectors have been developed and are ready for adoption that will have major repercussion for the cooling sector. The NOU works closely with the UNFCCC focal point, as well as the MoESD in charge of the energy policy in the country to ensure synergies across sectoral policies and generate positive spill-over effect of those policies on the phaseout of HCFCs.

Capacity building of target groups through trainings play one of the important roles in ODS/HCFC management. Based on international best practices[3] and Georgia's experience, e-learning (web-based, audio-video) courses and on-line certification systems are flexible, cost-effective and sustainable tools for knowledge and learning management of law enforcement officers and technicians. One of the most interesting and innovative tool suggested by countries is mobile application for RAC technicians, developed in Armenia outside MLF assistance. Thus, design and application of innovative knowledge and learning management tools will be continued under HPMP-II.

Similar to other e-tools, on-line registration and reporting tool for holders of ODS in the amount of 3 kg and more to be hosted and comanaged by MEPA and Customs Department of the MoF, is an innovative, cost-effective and sustainable tool to track ODS/HCFC sources, quantities and movements. Active application of this tool should be carried out during HPMP-II.

Desk evaluation report of lessons learned from ODS phase-out activities presented at the MLF ExComs' eighties meeting in Montreal concluded the following: "Refrigeration associations have been one of the most important strategic partners in the design and implementation of all the activities related to the RAC servicing sector, assisting in the design and implementation of training programmes, certification schemes and legislation or regulations for the exercise of the trade, and have served as a channel of identification and communication with the technicians. They have proven to be useful in the implementation of initiatives for the RAC servicing sector; when they do not exist, their promotion and creation becomes part of the programme objectives, as is the case of the countries in the PIC region and Bosnia and Herzegovina". This is true for Georgia. The GARCAE was very instrumental in reaching CHCF phase-out objectives under HPMP-I and its engagement in designing, implementing, monitoring and evaluating HPMP measures through MoU with MEPA is a good practice for orchestrated and sustained participation of civil society sector, community of practice professionals in project activities and optimum utilization of knowledge and resources. Therefore, this good practice will be carried over to HPMP-II.

Very interesting and innovative approach in terms of behaviour change/demand side management is GPP of RAC equipment introduced in Dominican Republic. Such GPP tools are applied in many countries and in various sectors, including RAC. There is also a worldwide network of green refrigeration and conditioning systems which plays a clearing house role for diffusion of green RAC technologies. It is called a Green Cooling Initiative (GCI), funded by the International Climate Initiative, German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and implemented by GIZ Proklima[4]. Awareness raising on GPP as well as communications and networking with GCI was included in X IS project and can be carried over under HPMP-II.

[3] Source: Desk study for the evaluation of the HCFC phase-out in the refrigeration servicing sector. EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL. Eightieth Meeting. Montreal, 13-17 November 2017. Distr. GENERAL. UNEP/OzL.Pro/ExCom/80/10. 18 October 2017. http://www.multilateralfund.org/80/Document%20Library1/1/8010.docx.

[4] Source: Green Cooling Initiative. https://www.green-cooling-initiative.org/about-x/about/

1.4 Development challenges and needs to be addressed

Currently, Georgia has a number of legal-regulatory, policy, capacity and awareness barriers and faces a number of development challenges towards reduction of HCFC consumption to target levels.

Low-/zero-GWP technologies: Current legislation for HCFC phase out in Georgia targets: i) reduction of HCFC supply through the HCFC quota and permit systems for the import/export of HCFC and codification system for Customs; ii) reduction of demand on HCFCs by improved handling of refrigerants through the introduction of a certification scheme for technicians, and accurate reporting on consumption of HCFCs; and iii) reduction of emissions through a venting ban, deployment of standards for safety and environmental requirements for RAC systems and the formulation and implementation code of practice for operation of RAC equipment. There is no data available on residential RAC installations in Georgia. However, it can be stated with a high degree of confidence that during the last decade the procurement of RAC systems, particularly of the cooling equipment, has been on the rise in Georgia's residential sector. In a view of projected climate change impacts and increased risks of heatwaves in urban areas of Georgia, the demand on cooling systems is expected to continue to grow. Creating enabling environment and supporting transition of cooling systems in municipal and state-owned buildings towards low-GWP/energy efficient conditioning technologies would be an important step to support gradual shifts towards more climate friendly cooling technologies. One way to facilitate this process is to provide guidelines for the procurement/replacement of cooling technologies. As of now, there is no green procurement criteria for RAC products that would prevent or gradually limit the purchase of HCFC 22. As a result, products containing refrigerants that are subject to phase-out (HCFC-22 based equipment) have been in continued demand and accumulated in the country. If a green procurement criterion for RAC systems (boilers, heaters, chillers, ACs, etc.) is developed, it can positively reinforce the HCFC phase-out and catalyse zero/low-GWP energy efficient alternatives. This will be an important preventive measure for protracted reliance on HCFCs based equipment.

On a parallel track with a support of other state-funded or bilateral initiatives (such as EU/KfW-supported), in order to support further market transformation in favour of a new range of low-/zero-GWP technologies, it will be important to put in place policies that encourage consumer uptake of such technologies. In this respect, Georgia will look into the possibility of the adoption of minimum energy standards and/or energy labelling. This activity will be supported through a parallel funding from programme(s) addressing climate change mitigation in Georgia.

Barriers to introducing zero/low-GWP alternatives currently include: limited access to technologies that is conditioned by starting capital costs of alternatives, limited availability of low interest loans for small and medium size businesses, and slow rate of introduction of such technologies at local market; emerging experience and capacity in adopting and handling technologies to local conditions; state procurement policies require further updates to promote low-carbon alternatives; limited work on minimum energy standards and/or energy labelling.

Reduction of end-of-life ODS emissions through recovery, recycling and reclamation of refrigerants: Important aspect of the HCFC phaseout - reduction of end-of-life emissions of ODS (as well as non-ODS) - is currently addressed mainly through a venting ban and promotion of best practices of handling ODS. Despite formal ban on ODS venting, it is still widely practiced, especially at the end-of-life electric goods recycling/collection sites that are largely informal in Georgia. Stockpiling of recovered refrigerants is also common that contributes to unwanted ODS emissions through leaks. These are ODS emissions that can be largely avoided. Enforcing venting ban is administratively infeasible given the resources and capacity of the law enforcing agencies. Introducing incentives for recovery, recycling and reclamation of refrigerants would be a more feasible alternative, considering the administrative burden of prohibition enforcement.

Increased application of zero/low GWP alternatives, that also include flammable and/or toxic refrigerants, increases the risk of accidents associated with the use of such refrigerants. Therefore, strengthening the capacity of technicians in this respect is key. Particular attention in this respect should be paid to further developing the qualification standards of technicians and having in place respective supporting programmes. Wide use of flammable and/or toxic refrigerants shall be also supported by adequate and up-to-date standards for safety and environmental requirements.

Knowledge, skills and capacities of key stakeholders: In Stage I of the HPMP initial work has been carried out to build capacity of key stakeholders of Georgia's – the refrigeration servicing sector and law enforcers. To ensure sustainability of capacity building efforts, a programme for professional education for RAC technicians was developed and introduced in three vocational schools, where students can currently acquire modern knowledge,

skills and competencies. Stage I efforts also focused on improving control over the ODS supply at the borders of the country through capacity development of Customs officers in monitoring and control of imports/exports of ODSs, detecting and preventing illegal trade. Special training programmes have been implemented for the Environmental Inspectorate to develop necessary skills to carry out state control over the day-to-day functioning/running of the RAC systems by end-users.

Regardless of significant capacity development efforts for service providers, the demand and supply of certified skilled technicians is still inadequate in the country together with education and professional training programmes and tools; capacities of technicians are particularly weak in compliance with the Good Servicing Practices, handling low GWP refrigerant gases and ensuring occupational safety. Currently, only one accredited vocational education programme aimed at improving servicing practices in "Air Conditioning" is available, and being taught in three vocational schools that offer professional education for RAC technicians in Georgia. The programme intends to cover domestic, commercial and industrial refrigeration equipment. Furthermore, the GARCAE association recommends to incorporate a course on Good Practice in RAC System Service, including handling zero/low GWP alternatives and technologies and standards for Safety and Environmental Requirements for Refrigeration Systems and Heat Pumps Services. It is also of utmost importance that the professional education programmes are fully aligned with the Competency Standards of Technicians. This means that respective education courses shall be made available in the country for acquiring required competences.

HPMP-I has established a **Certification System for technicians** which served as a good starting point for improved maintenance/servicing of RAC equipment that is key for the reduction of HCFC consumption and emissions. The system, however, requires further finetuning. It particular, re-enforcing the system, in addition to the currently practiced written test, with a formal practical examination will provide a further boost to the quality of education and longevity of acquired knowledge. Surveys show that currently the number of RAC technicians in the country is around 1,000 out of which only 150 RAC technicians are certified. The rest of them represent an informal sector. There is a lot of room for improvement in terms of capacity building of technicians and certification.

With respect to the implementation of policies and legislation, including law-enforcement, considering a high rate of turnover of staff state authorities' capacities and knowledge created within different state agencies are frequently lost. Moreover, skills and knowledge acquired need regular refresh in terms of global and local policy changes (e.g. anticipated policy shift towards the consumption of alternative refrigerants, including low/zero GWP alternatives and technologies). Therefore, it is necessary to continue with **targeted capacity building activities for law enforcement agencies** (Customs and environmental inspectorate). Respective training materials developed in the framework of Stage I should be updated and carried over to the Stage II.

On the technology side, RAC equipment **end-users or importers** often do not have sufficient information for making informed choices about the best available technologies on the market. Therefore, it is of great importance to target awareness campaigns at refrigerant and RAC equipment importers to influence their choice of technology. Addressing their awareness on modern alternatives, as well Georgia's future work on the Kigali Amendment, can significantly improve market level knowledge on the need to transit to non-HCFC and Low-GWP alternatives.

Furthermore, cross-sector and inter-agency cooperation between NOU and agencies (e.g. **CD, MoESD, MoSE, the National Agency for Standards and Metrology)** working on technology standards such as safety and low/zero GWP technologies is under-developed and needs further strengthening.

GARCAE's role in bridging policy-makers and end-users/technicians, providing advisory services to importers, wholesalers, distributors, and end-users of RAC equipment and refrigeration serving sector representatives, conducting advocacy and awareness campaigns and, networking with community of practice members at the international level for know-how and technology transfer is yet underutilized and has a room for further improvement that should be taken into consideration in future activities.

The experience in implementation of activities show that importers and end-users have difficulties in accessing information about new refrigeration systems and gaining access to these technologies. This delays the process of introduction and diffusion of advanced technologies and in a view of anticipated legislative changes diminishes competitiveness of the private sector. Stage II therefore should assist the private sector to target new refrigeration

systems well ahead of legislative deadlines in order to avoid risks associated with the future supply and costs of refrigerants. Engagement with the private sector, therefore, will be one of the priorities of the Component II.

Incentive (demonstration) programmes. Given the current economic development trends and covid-19 impacts on local economy to be felt over next years, RAC market is pretty thin in Georgia and businesses, especially SMEs have weak financial capacities and resources (including capacities to attract donor funds and private investments) to meet HCFC phase-out requirements and adjust their operations to these requirements. Besides, their awareness is low in legal-regulatory and policy requirements related to HCFC phase-out and available HCFC low/zero ODP and/or GWP alternative substances and processes as well as on energy saving measures. There are few, if any, local companies who may assemble imported components to help reduce financial and technical barriers to adopt newer technologies. These financial, technical and knowledge barriers hinder proliferation of cutting-edge technologies. Raising awareness and generating demand for such equipment is necessary. Promotion through demonstration projects is an effective tool to test and validate the technologies that are commercially viable for local circumstances and help to generate demand on such equipment. However, efforts of demonstration projects may yield low impacts, if any unless they are reinforced by regulatory and policy measures. Thus, under Stage II demonstration projects should be complemented by legal-regulatory and policy measures for the introduction of modern low GWP technological options with better performance.

Demonstration projects are important in terms of influencing the choice of technologies among RAC system end-users. Considering that the commercial refrigeration represents the largest share of refrigeration consumption for replication potential, and performance plays important role in decision making of end-users when purchasing or upgrading RAC systems, demonstration projects in the second stage of HPMP should focus on the small size equipment in commercial refrigeration sector. Small size equipment is represented at the retail sector such as supermarkets. Experts estimate that around 1,500 small size and around 200 medium size equipment operates in the country currently. Around 10% of the equipment holders are likely to show interest in replacing/retrofitting their equipment after the demo projects' implementation and awareness raising. Furthermore, local assembly of imported components should be considered as possible option for demonstration projects to help reducing barriers to adopt newer technologies at the national level. MEPA, targeted businesses and UNDP CO should work on mobilizing additional investments or technical assistance in support of incentive programme. Switching to the use of zero/low GWP refrigerants requires adequate capacity of end-users and servicing technicians to ensure strict compliance with international-standard based safety requirements during the installation, operation and maintenance of newly introduced technology, especially if flammable and/or toxic refrigerants are applied that is currently practically neglected by business sector currently. Therefore, the demo projects should be accompanied with special trainings for the operators and technicians servicing the equipment. Demonstration/incentive projects are aimed to serve, inter alia, as a good platform for the awareness raising of the end users to demonstrate low/zero GWP modern refrigerating technologies that can be used to replace HCFC needs, as well as to raise demand on RAC servicing technicians having the knowledge and practical skills in advanced technologies in RAC equipment.

Technical capacities of service providers: Technical capacities, including hard infrastructure of RAC service providers especially, uncertified individual technicians are inadequate.

RRR network in Tbilisi and in Kutaisi established under the National Programme for Recovery & Recycling of Refrigerants in Georgia have received a set of recovery equipment, cylinders and service tools under previous TPMP and ongoing IS efforts. Moreover, with the support of the TPMP, the main recycling centre (in Tbilisi) was upgraded to perform recycling and reclamation of used ODSs and validate the quality of treated material. The re-use scheme is a pre-requisite for improved recovery rates and better practices. In a view of plans of the Government of Georgia to drastically reduce HCFC consumption in the coming years for their effective and complete phaseout, the role of the national RRR system will grow, since it is a sole entity in Georgia that has adequate technical capacity and expertise to perform recovery, recycling and reclamation of refrigerants. However, RRR centres do not have environmental decisions (environmental impact permits) at present and with absent in-house expertise and capacities in environmental impact assessment it might not be an easy job for these entities to acquire environmental permits. Therefore, an assistance has to be provided to the given centers in achieving a full compliance with requirements of the Environmental Assessment Code and other complementary legislation.

Investments into servicing equipment/tools are necessary to achieve preventive reduction targets of the HCFC phaseout process, both at the level of law enforcement and operational/technical level (service centres and technicians). At present, it is estimated that only a small number of the technicians are adequately equipped with

tools, and have basic knowledge of and skills in recovery and recycling of HCFCs. The lack of such equipment/tools is a national issue in law enforcing agencies as well. More specifically, CD of MoF and Environmental Supervision Department of MEPA lack refrigerant identifiers, leak detectors and personal protective equipment (PPE) as well as spare parts. Portable equipment may be very useful as it could be moved around cargo trucks or carried onboard of sea ships. This equipment is needed especially in the Clearance Economic Zones (that are 5 of them in the country), where the most of illegal entries of HCFCs are identified[5].

At present, refrigerant service centres in regions and cities other than Tbilisi and Kutaisi have very weak technical capacities in terms of servicing RRR equipment, tools and spare kits; therefore, a priority has to be given to service centres operating in the regions/provinces of the country where there is potential to expand the scope of services to recycling processes. Technical equipment to be supplied may also be applied for alternative refrigerants. In particular, the equipment may include but not be limited to following devices:

- Refrigerant recycling units and accessories;
- Portable leak detectors (covering ODSs, ammonia, methane and propane leak detectors);
- Refillable (30 lb) refrigerant cylinders meeting relevant safety standards;
- Multi-meters and servicing tools/instruments;
- Large cylinders (100 lb) and vacuum pumps, electronic refrigerant scales, valve manifolds, hoses and spare kits;
- Recovery and recycling station on oil-less compressor and 2 cylinders each, for compatible refrigerants (ODSs), with tools (advanced multi-refrigerant analyser for HCFCs, HFCs and HCs, Lockring tools) and spare kits.

Besides RAC service centres, the technical assistance should be provided to individual certified technicians.

For increased quantities of reused ODS, Georgia requires an adequate long-term on-site storage infrastructure. Currently reused ODS is stockpiled at the CRRR Tbilisi that operates at its limits. Thus, there is a need for feasibility study of infrastructure options for long-term on-site storage of reused ODS with a detailed cost assessment for its establishment and maintenance.

The use of natural refrigerants and low GWP alternatives in the vocational schools: At present, existing vocational school do not have state-of-art training installations specifically designed to handle flammable refrigerants, including natural refrigerants and GWP alternatives. These installations/ equipment should include at least: leak detectors, recovery machines, monomeric collectors/vacuum pumps, multi-meters and other useful HVAC&R tools, stands for AC splits on propane, etc. Detailed needs assessment of selected active vocational schools should be carried out in order to identify the list of priority hard infrastructure.

[5] the results of the analysis made by mobile identifiers are legally accepted as a proof in courts.

II. STRATEGY

The Development/long-term objective of HPMP ***is initial freeze and progressive reduction of HCFCs consumption in refrigeration sector and solvent sectors while minimizing economic and social impacts.***

The concrete goal of the II Stage of HPMP is to achieve 67.5% HCFC consumption reduction by 2025, 97.5% reduction by 2030 and 100% reduction by 2020 by implementing groups of horizontal and specific measures that will ensure smooth and sustained transition from HCFC consumption.

Table 9: HPMP-II phase out targets

Year	Target quantity in MT	Target quantity in ODP tones	Phase-out in %
2025	27.01	1.49	67.5%
2030	2.08	0.11	97.5%

Projected consumption level from 2021 to 2030 is assessed is given in table 10 below.

Table 10: Projected consumption level for 2021-2030

(VI) PROJECT DATA	2021	2022	2023	2024	2025-2029	2030	Total
Maximum allowable consumption (ODP tonnes)	2.6	2.32	2.04	1.76	1.49	0(*)	n/a

In 2030-2040 Georgia intends to carry out subsequent control steps to achieve a complete phase-out of HCFCs by gradually reducing 2.5 % of the baseline consumption for servicing needs until 2040.

HPMP-II will address development challenges that Georgia faces towards meeting HCFC phase-out objectives, meaning that no significant deviation from the original overarching HPMP strategy is envisaged. Nonetheless, some adjustments are considered in a view of existing priorities and policies in the country:

- Focus will be made on RAC sector due to the discontinuation of ODS use in solvents sector;
- Strategy will place more emphasis on the **collection, recycling and recovery of used HCFC/other ODS** that represent a challenge, for the country;
- Policy, regulatory and institutional support, that is a key dimension of the Overarching Strategy, will also look at the **Public Procurement (PP)** with the aim to gradually reduce dependence on HCFCs in the public sector and to promote zero/low GWP refrigeration alternatives in public procurement activities. PP should be viewed as an opportunity to catalyze and positively reinforce the use of new technologies in the country;
- Stage II will further reinforce the efforts in the area of **development of professional standards of technicians and strengthening vocational education and training** in Air Conditioning & Refrigeration.

To achieve the above phase-out targets, Georgia in Stage II of the HPMP intends to focus on three (3) overarching strategic areas:

- ✓ **Thematic area 1**: control over supply, demand and emissions/releases of HCFCs;
- ✓ **Thematic area 2**: collection, recovery, recycling and reclamation[6] of HCFCs, including from end-of-life RAC equipment;
- ✓ **Thematic area 3**: natural refrigerants/low GWP including through fiscal incentives

Each of the above thematic areas will be approached in a comprehensive way by:

- tackling shortcomings of policy, regulatory and procedural framework;
- continued build-up of skills and knowledge to ensure adequate capacity of Customs, environmental inspectorate, technicians, vocational schools and RRR network;
- implementing conversion/demonstration projects to expose RAC operators and technicians to technologies based on natural/alternative refrigerants with low GWP effects, and promote their application in the domestic market;

[6] Destruction of ODS can be carried out; no respective facilities are available in the country.

- supporting good servicing practices in the refrigeration sector.

Stage II of the HPMP will be implemented through clusters of non-investment and investment measures which are grouped into following 5 components:

- **Component 1**. *Policy, Regulatory and Institutional Support* aims at strengthening legislative and regulatory base for facilitating market transition to a new range of technologies, application of relevant green procurement approaches, introducing policy options for incentivizing the return of used refrigerants, labelling of reclaimed refrigerants and placing them on the market, developing professional qualification standards for technicians.
- **Component 2**. *Training, Capacity building and Awarene*ss aims at building capacity of technicians in in handling zero-GWP refrigerants, supporting vocational schools, strengthening Certification System for technicians, enhancing capacity of law enforcement agencies, informing importers and end-users on new technology options for refrigeration and cooling, facilitating intersectoral cooperation.
- **Component 3**. *Demonstration Projects* aims at promoting the application of low-GWP technologies having significant potential for broad application in Georgia.
- **Component 4**. *Technical Assistance to Support Good Servicing Practices in the Refrigeration Sector* aims at providing support with hardware (equipment) to the Customs Department and Department of Environmental Supervision, the RAC service centres and vocational schools and assisting Georgia in defining the policy for on-site storage of ODS waste.
- **Component 5.** Project Coordination aims at creating an efficient management and coordination mechanism for successful implementation of the project activities.

The programme of measures will cover the period from 2022 through 2030 and will be implemented in 4 tranches. Final tranche will be issued to Georgia, with a condition that the:

1. **The Government of Georgia will develop and submit a detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption was in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the 2030-2040 period;**
2. **The Government of Georgia will develop and submit the report on expected annual HCFC consumption in Georgia for the 2030-2040 period;**

UNDP will submit detailed reports on the results of the incentive schemes for end-users in small and medium commercial refrigeration equipment once they have been completed, to allow the Secretariat to develop fact sheets to inform future projects, in line with decision 84/84(d).

The programme of measures for the HCFC phase-out will be designed in a way that will also facilitates coordination with the future implementation of the *Kigali Amendment*, once Georgia ratifies it. More concretely, the proposed action will keep in its view the implementation of the F-gas/ ODS related provisions of the *EU-Georgia Association Agreement* and other relevant policy documents in the area of climate action and waste management[7], and cooperate within MEPA and with associated line Ministries involved in those programmes.

Further, the government of Georgia is well set to explore the opportunities to advance with the ongoing or plan new climate action programmes. For example, the European Bank for Reconstruction and Development (EBRD) with the co-financing from the Green Climate Fund currently implements a regional initiative "*Green Economy Financing Facility Program"* in several countries, including Georgia. The programme aims to deliver climate finance to the private sector through partner financial institutions. The Clean Technology Fund (CTF) allocates funds for non-annex 1 countries to invest in clean technology projects that promote transfer of the low-carbon technologies. These and similar programmes will be approached for potential scaling up of Stage II demonstration projects.

Issues to be addressed by the project and its objectives are in line with national environmental goals (objective#1) and priorities outlined in National Environmental Action Plan and national SDG goals 12.8: "By 2030, ensure that people of Georgia have the relevant information and awareness for sustainable development and lifestyles in

[7] the National Waste Management Strategy for 2016-2040 (action that focuses on hazardous waste management and EPR)

harmony with nature"; 13.2: "Integrate climate change measures into national policies, strategies and planning" and 9.b: "Support domestic technology development, research and innovation, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities;

Goals and objectives as well as suggested strategic approaches and measures of HPMP-II fall within priority areas of 2021-2025 UN Sustainable Development Framework (UNSDF) for Georgia, namely outcome 5: "By 2025, all people, without discrimination, enjoy enhanced resilience through improved environmental governance, climate action and sustainable management and use of natural resources in Georgia" and are relevant to country programme (CPD) outputs 2.1: "Environmental governance and institutional capacity enhanced to enable rational, equitable and sustainable use of natural/land resources, to ensure conservation of ecosystems, use of innovative and climate-friendly technologies for inclusive green economy, energy efficiency and clean energy production, and make communities more resilient to environmental shocks".

III. RESULTS AND PARTNERSHIPS

3.1/ Outputs/component, Activities and Sub-activities

The project is expected to have following outputs/components:

- Output/component 1: Policy, Regulatory and Institutional Measures.
- Output/component 2: Training, Capacity-building and Awareness.
- Output/component 3: Demonstration Projects.
- Output/component 4: Technical Assistance to Support Good Servicing Practices in the Refrigeration Sector.
- Output/component 5: Project Implementation, Monitoring and Evaluation.

Below are given activities per project outputs/components.

Output/Component 1: Policy, Regulatory and Institutional Support

1.1 Complete and operationalize the web-based electronic reporting and permit system for HCFC import and consumption; conduct training for end-users and technicians for using the electronic reporting tool. The web-based central electronic reporting system for management of refrigerants currently under implementation within the framework of the Institutional Strengthening (IS) phase XI phase, will be further supported in Stage II to complete the design of the system and fully operationalize it. The electronic database systems of the Customs Department and MEPA will be also linked to enable Customs officers to access data online on the issued HCFC import permits and to input data on imported quantities electronically. Adding in the system an option for filling out declaration on imported HCFC in advance would also facilitate the streamlining of the whole process and improve the quality of service at Customs. Once system is in place a new regulation on the rules for operating electronic refrigerant management system will be adopted. Such centralized database will bring under unified system information on import permits, circulation of refrigerants (through reporting on amounts and types of refrigerants purchased and stockpiled, types of servicing and maintenance events) and refrigerant consumption. This process will be supported by training of RAC equipment importers, end-users and technicians.

1.2 Develop Green Public Procurement (GPP) criteria for environmentally friendly alternatives in the RAC systems that will promote low GWP technologies. In particular, a special guidance document will be developed and adopted for the State Procurement Departments of public agencies that will focus specifically on the low-carbon cooling equipment. Institutions to be involved are the state agencies, as well as the state enterprises with investment plans (i.e. Georgian railway, Georgian Oil and Gas Corporation, United Water Supply Company of Georgia, etc). Safety standards will be considered when defining the specifications in the procurement processes. The guidance document will be designed in a way that will be easily incorporated into tendering documentation for public procurement announcements (for procurement of equipment and services for RAC systems). This activity will be complemented with a training for the procurement department staff of the relevant public institutions on how to incorporate proposed criteria in tendering documents for procuring of equipment and services (maintenance/operation of RAC systems). Part of this activity will be also developing amendments to the law on Ambient Air Protection and the Code of Administrative Offenses to introduce a ban on the import of HCFC-based equipment.

1.3 Conduct a detailed study on policy options for incentivizing the return of used refrigerants to reduce ODS/non-ODS emissions will be carried out. Applicable and feasible fiscal incentives for recovery and collection of ODS/non-ODS from decommissioned RAC systems will be assessed and recommendations made. In addition, separate research will be made on the most feasible business model that promotes the R&R and its infrastructure development. The activity also envisages development of respective regulatory changes for adoption to support this HCFC re-use system. The results of the study will be widely communicated with the target beneficiaries through GARCAE.

1.4 Develop regulations on labelling of reclaimed refrigerants and placing them on the market will be developed and introduced. Proposed legislative changes will be in line with the EC Regulation on ODS (#1005/2009) and EU Regulation 517/2014 on fluorinated greenhouse gases where the government advances with approximation of specific legislative modules with the EU-funded work. An adequate tracking system will be proposed to allow verification of the sale of reclaimed refrigerant. Tracking system

is necessary to ensure that the use of reclaimed refrigerant displaces the use and potential emissions of new virgin HCFCs and aims at low GWP solutions.

1.5 Develop professional qualification standards for the Level 4 Technicians that will include competencies for use and safe handling zero-low GWP refrigerants and developing respective changes in legislation. A practical example will be introduced in the certification system to ensure that besides knowledge, certified technicians have adequate level of skills.

1.6 On a separate track, with a view to facilitate speedy transition to low-GWP modern ACs and refrigerating appliances, identify and attract parallel financing from programme(s) addressing climate change mitigation in Georgia to look into better equipment performance options. Through an open consultation with stakeholders will be defined energy performance requirements for ACs and refrigerating appliances.

1.7 Conduct a study on policy options for incentivizing import and use of zero-low GWP based RAC systems will be conducted with the aim to identify main barriers for inflow of technology and its use and develop necessary legislative changes as required.

1.8 Revise the Standards for Safety and Environmental Requirements for Refrigeration Systems and Heat Pumps Services (with particular focus on flammability, high-pressure and toxicity considerations) in line with the international standard under preparation "UFDIS-ISO 22712 - Refrigerating systems and heat pumps" and adopt respective changes as required

Output/Component 2: Training, Capacity-building and Awareness

Taking into consideration current development challenges, Component 2 will have the following five main target groups whose capacities it will enhance:

1. National (3) vocational schools which provide specific training programmes for the RAC technicians;
2. Individual service companies and technicians servicing RAC equipment of different cooling capacity (domestic, commercial and industrial);
3. National Refrigeration Association (the GARCAE);
4. Law enforcing agencies such as the Customs and Environmental Inspectorate;
5. HCFC and HCFC based equipment network (owners/operators and importers of RAC equipment).

In a view of above, following capacity building measures will be implemented under respective thematic areas:

2.1. Organize 2 Training of Trainers (4-days each) for up to 20 trainers/vocational school teachers on safe use and handling of zero-low GWP refrigerants and energy efficiency improvements of RAC equipment

2.2. Develop a guideline on refrigerant leakage control and safe handling of flammable/toxic refrigerants and mini demonstration project on Zero Leaks

2.3. Organize 8 training courses (4-days each) for up to 200 technicians on good refrigeration practices and alternative refrigerants

2.4. Develop test for practical exams to be integrated in the certification examination; develop additional multiple versions of test for written examination. Translation of test into additional languages

2.5. Organize 8 trainings (2-days each) on the import controls for ODS/non-ODS for up to 250 customs officers. Develop Customs Quick Tool for Screening ODS and print around 1,000 copies

2.6. Organize 8 two days trainings (2-days each) for up to 150 environmental inspectors on the control of compliance with the ODS regulations

2.7. Carry out online technical assistance programme for technicians /end-users of RAC during up to 2 years; Raise awareness of SH on feasible business model for R&R infrastructure; Develop and implement communication plan.

2.8. Revise and update the curriculum of the accredited vocational education programme to adequately reflected RRR and equipment performance related issues in the programme. The programme will also integrate a module on the Good Practice in RAC System Service and Standard .

2.9. Organize a conference for up to 60 participants on the state-of-art technologies with focus on zero-low GWP alternative refrigerants, their performance and application.

2.10. Organize up to 10 roundtable meetings for policy dialogue to facilitate the alignment of policies across respective sectors and reinforce the HCFC phase-out in the country.

Output/Component 3: Demonstration projects

Component 3 will consider lessons learned from previous demonstration projects implemented within the frames of Stage I, when needed technologies were not available locally. Therefore, local assembly of imported components will be considered as possible option for demonstration projects to help reducing barriers to adopt newer technologies at the national level.

Potential end-users will be influenced through i) two presentation events about the outcomes of the demonstration projects, where end-users will be invited to attend; ii) a conference/workshop that will be organized for importers and operators of RAC system on the state-of-art technologies, performance and application of the zero/low GWP alternative refrigerants, which will feature a small-scale platform for distributors/importers to present/demonstrate their products.

In a view of above, following activities will be implemented:

3.1. Carry out analysis of obstacles of technology transfer/inflow and propose recommendations to address them.
3.2. Develop detailed scope for the technology demonstration programme, define priority technologies to be applied.
3.3. Design and implement demo projects with focus on the natural refrigerants, with up to 50% co-financing
3.4. Organize 2 workshops to present the outcomes of demonstration projects and applied technology

In 2019 a survey on the end-use application of HCFC-22 in economic sectors of Georgia has been carried out in order to assess the alternatives for implementation of demonstration project to showcase more climate friendly solutions. The survey clearly showed that selection of optimal alternatives is high on the agenda in Georgia. Obtained information will be used to select the most optimal format and partnership for implementation of the demo projects in the RAC sector. The GARCAE will assist the project implementing partner in refining methodologies of demonstration programme, including on co-investment requirement at a minimum level of 50% of financial participation from the side of the private sector. Considering the exposure of the Association to the market and its access to end-users, importers, technicians, etc, it can help in improving visibility of the project outcomes. This will be done through various means, including a workshop presenting the plans (and later, results) of demonstration project to members of GARCAE and other interested stakeholders. Once the study/market assessment are complete and the programme can commence, Stage II will intend to provide co-financing (with a total value of 85,000 USD) for at least 3 demonstration projects (2 small and 1 medium commercial equipment) that will mainly target the commercial refrigeration sector and focus on the technology conversion type of measures. The major criteria for selection of at least three (3) participant organizations will be as follows:

- High demonstration value in terms of net positive low GWP results and replication in other organizations or companies or similar sectors, including in light of cost savings/economic benefits;
- High demonstration value in terms of HCFC emission reduction and performance improvements;
- High accessibility – demonstrations should be taken place in towns and/or in training institutions where RAC operators can gain easy access to demonstration sites for learning. The GARCAE will play a key role in this process in order to facilitate experience exchange at a wider scale in the industry;
- Co-financing up to 50% co-financing will be offered to the participants o demonstration projects.

HC and HFO based applications are more available, widely used and feasible. Therefore, installation/retrofitting of at least 1 HCs, and 1-HFO based applications will be considered when implementing demo projects for different categories. The sector considered for demo projects is the retail.

An important attribute of the demonstration projects will be to monitor, quantify and report on the practical results in terms of reduction of refrigerant's use and related energy consumption. This will be key for potential replication and scaling up of the approach to technological conversions prompted by the demonstration projects. Disseminating this information will be key in promoting awareness about applicability of such technologies and benefits that this technology offers to end-users.

Estimated quantity of total phased out HCFC will be approximately 120 kg from the implementation of demonstration projects. Exact figure will be defined once the beneficiaries of demonstration projects are identified.

This figure is likely to grow fast in future thanks to the spin off effect of demonstration projects, scale up effect from green procurement policies and legislative changes. Experts estimate phase-out of 2,500 kg of HCFC as a result of the demo projects' spin-off and scaling up effect.

Output/Component 4: Technical assistance to support good servicing practices in the refrigeration sector

This component addresses the physical capacity requirements associated with the urgent and longer term need to upgrade the country's refrigeration servicing sector through following activities:

4.1. Supply the Customs Department with 15 refrigerant identifiers, 15 leak detectors along with personal protective equipment (PPE) (protective glasses, gloves) and spare parts for equipment

4.2 Supply of service centres and technicians with necessary service equipment and tools:

4.2a. Supply 3 Services centres with equipment and tools in regional cities/towns.

4.2b. Supply up to 160 individual certified technicians with equipment and tools in regional cities/towns.

4.2c. Provide technical consultancy service on specifications of all equipment to be purchased.

4.3: Conduct a study to assess the infrastructure options for long-term on-site storage of used ODS waste. The study will also include a detailed cost assessment for establishment and maintenance of such storage facility.

4.4. Upgrade training installations in 3 vocation schools

4.5. Stakeholder coordination, advisory, and oversight of components

Output/Component 5: Project implementation, monitoring and evaluation

Activities under this output will include daily project management, monitoring and review/evaluation. Details of this component of HPMP is presented in chapter V on project coordination and management. The following type of activities are to be performed: participation in the implementation of components and activities funded by the MLF, formulation of guidelines and regulations as required for the policy development and implementation, support to public awareness activities, and interaction with other ministries and stakeholders.

The project's progress towards expected results will be monitored and assessed against performance indicators. Progress of the project implementation will be reported regularly to the Executive Board. The Board will assess whether the progress towards the desired outcomes is being achieved, project risks are managed and adjustments to the performance measurement system are needed.

Further details on arrangements are provided in management arrangements part.

3.2/ Resources Required to Achieve the Expected Results

The project will be managed by a part-time Project Manager of Enabling Activities Project with a support of a part-time Project Assistant, hired through UNDP CO. In addition, a number of local consultants/firms will be hired to assist the project in: i) carrying out various assessments and feasibility studies, ii) developing concepts of regulations/legal amendments, iii) developing knowledge products and conducting trainings for various target groups. Travel of the NOO to various regional and global events will be also supported. For outreach campaign production of various materials, media coverage and various promo actions are planned. The Government of Georgia will provide in-kind contribution to the project in terms of staff-time of NOO, space for board meetings and various technical consultations, etc.

3.3/ Partnerships and stakeholder engagement

An implementing partner for the project will be the MEPA through its NOU/NOO hosted by the Environment and Climate Change Department. The Project Executive Board (PEB) will ensure participation of the MEPA (e.g. representatives of Environment and Climate Change Department, Environmental Information and Education Centre, etc.) and GARCAE in directing the project. Extended PEB meetings will be organized from time to time, where and when necessary in order to strengthen communications and consultations with other departments of

MEPA (e.g. Environmental Supervision Department) as well as with other Line Ministries on such topics as introducing regulation of mandatory certification of RAC service technicians, managing HCFC equipment, setting and enforcing standards and regulations, VET programmes, etc..

Other key players are as follows:

- CD of the MoF that carries out systematic monitoring of all entry points into country and exercises control over imported/exported ODS, including HCFC;
- MoSE that sets legal conditions for regulated professions and is in charge of the registry for such professions (national list of regulated professions); Vocational schools that offer course for RAC technicians;
- GARCAE that brings together the service companies and end-users in RAC and heat-pump sector, and coordinates an interface of the business industry and the government's policy-makers on the industry's aspirations and general support to the national HCFC-phase-out programmes;
- Centres for Recovery and Recycling of Refrigerants (CRRR) that play important role in introducing Good Practices for RRR activities;
- National Agency for Standards and Metrology of Georgia (GEOSTM) that develops standards for application of alternative refrigerants and sets uniform level of products and services.

Cooperation with and among key stakeholders will be ensured through two parallel set-ups. Given the role and interest in the subject matter, some stakeholders will be engaged more actively through an Executive Board of the project. A separate platform will be created to facilitate policy dialogue across sectors and regular exchange on issues related to ODS with a broader list of stakeholders.

In implementing its activities, the project team will cooperate with Environmental Information and Education Centre (EIEC), various NGOs and in particular with GARCAE and VETs in developing educations and awareness training programmes/tools and applying them in practice (e.g. mandatory certification programme of RAC service technicians, various e-learning tools for customs officers and environmental inspectors, etc.).

Furthermore, the project will assist the NOO/NOU in strengthening communications with relevant line Ministries and other on-going international development initiatives working in ODS phase out. More specifically, a platform for regular experience and information exchange and policy dialogue between MEPA, MoF and MoESD will be established. The main objective of this activity it to facilitate the alignment of policies across respective sectors and reinforce the HCFC phase-out and PFC phase-down in the country. The cross-cutting issues that will be tackled through a policy dialogue may include but not limited to: energy-efficient and climate-friendly cooling, safety measures, building codes, etc. Furthermore, this platform will be used to seek for synergies with relevant programmes to promote upscaling of the HMPM Stage II demonstration projects. This process will support a policy dialogue that will bring together: the NOU, Climate Change Service, Waste Management Department, Rural Development Agency of MEPA; Customs Department of MoF, etc.

The project will continue building and strengthening a network of CRRRs across the country through expanding it to regions and supporting CRRRs with upgrade of RRR equipment.

Business sector, including importers, producers and end-users of refrigerants and RAC equipment will play a pivotal role in implementing incentive programme and replicating know-how and cutting-edge technologies across businesses in RAC sector. In this endeavour MEPA, targeted businesses and UNDP CO in a concerted effort will seek for additional investments and technical assistance from donor programmes/projects, financial institutions and private sector.

3.4/ Risks and Assumptions

Risks associated with the project are of political, institutional and financial nature and range from low to medium. No environmental risks associated with non-investment projects and also no or negligible environmental risks are related to the procurement of special service and CHCF monitoring and control equipment as well as to demonstration projects. For latter. the risks during implementation are more related to safety measures, while during the after-care of equipment they are related to proper operations and maintenance of the equipment and control of ODS emissions.

Typical risks and assumptions associated with the project are as follows:

- *Assumption 1: GoG's strong willingness to develop, adopt and enforce proper legal-regulatory and institutional basis for HCFC phase-out; Risk: GoG's low willingness to develop proper legal-regulatory and institutional basis for the management of HCFC-based equipment and ODS wastes;*
- *Assumption 2: GoG's high interest in learning green procurement and its willingness to introduce it in public procurement system; Risk: GoG's low interest in learning green procurement and its low willingness to introduce it in public procurement system;*
- *Assumption 3: Government agencies closely cooperate on cross-cutting issues such as climate change and ODS phase out and management of ODS wastes; risk: cross-agency cooperation on cross-cutting issues is low;*
- *Assumption 4: Business's strong interest and willingness to participate in demonstration projects through providing co-financing or in-kind contribution to pilot projects; Risk: Business's poor interest and capacity to participate in conversion projects;*
- *Assumption 5: Results of demonstration projects are replicated across end-users; Risk: Demo projects do not result in replication;*
- *Assumption 6: The rate of diffusion of low GWP alternatives is high enough to result in achievement of HCFC phase down targets; Risk: the rate of diffusion of low GWP alternatives is low;*
- *Assumption 7: Investment measures are implemented in line with international-standard based environmental and safety requirements; Risk: investment measures lead to negative environmental impacts;*
- *Assumption 8: MEPA's strong willingness to provide necessary financial and technical backstopping to the project, in terms of allocation of relevant staff's time, space or other means for stakeholder consultations, etc. Risk: MEPA's low willingness to provide necessary financial and technical backstopping to the project, in terms of allocation of relevant staff's time, space or other means for stakeholder consultations, etc.;*
- *Assumption 9: High interest of all targeted stakeholders, including customs, MEPA's various departments, line ministries, RAC technicians, RRR centres, etc. to participate in project activities, including trainings*
- *Assumption 10: Provided CB and awareness raising assistance leads to enhanced knowledge and skills and is sustainable over the time; Risk: provided CB, TA and awareness raising assistance is insufficient for enhancing knowledge and skills of stakeholders and/or is not sustained over time;*
- *Assumption 11: GoG's strong willingness to maintain existing capacity and institutional memory within the GoG; Risk: GoG's low willingness/unwillingness to maintain existing capacity and institutional memory within the GoG*

Detailed description of risks and their management options are given in risk log contained in annex 2 as well as in filled in Social and Environmental Screening report also annexed to the prodoc (Annex 3).

3.5/ South-South and Triangular Cooperation (SSC/TrC)

The project will further support introduction and diffusion of zero ODS and low GWP alternatives to HCFCs from countries producing/applying such technologies. Experience of developed and developing countries with similar conditions as Georgia will be also studied with regards to application of alternative technologies and energy saving measures.

3.6/ *Digital Solutions*

The lockdowns introduced during the COVID-19 pandemic have already induced our society to bring many digital solutions to maintain work to the extent possible. By using this knowledge, the project implementation is going to benefit and maintain the assets gathered within these years. The project is going to use the digital solutions and technologies with a mode of digital components as an enabler as described below:

Project Management

The Project will use efficient digital options to fulfil the project management needs. The shared collaborative tools such as Google document, excel or sheet, and online team meeting tools that are the most intuitive for everyone in Georgia will be used for effective management of the project. These tools allowing the team to reduce the time

and effort for transmitting and sharing the project data and information to each other, simultaneously address the key issues related to the project implementation.

Stakeholder's Involvement

The interested stakeholder's involvement in in-person meetings has always been challenged by time, distance and funds. With the digitally-enabled hybrid meetings via the use of online meeting platforms, the project will increase the stakeholder engagement on the development of deliverables and reduce the carbon footprints at a certain point for each stakeholder consultation event.

RMS – Refrigerant Management System

For the successful enforcement of ODS related legislation and control of ODS substances within the country establishment of electronic monitoring system is critical. In that regard, within first phase of HPMP in 2021, Ministry of Environmental Protection and Agriculture of Georgia was supported in building the web-based system for various users: environmental inspection and administrator (MEPA), RAC Technicians, Customs officers (Revenue service of MOF), Importers, stationary equipment holders. Within framework of this project, soft will be further developed and enable all users to work in one portal, in online regime, that will make the reporting and control easier and transparent. This digital tool/soft will save the project and government resources to some extent on gathering validated information.

3.7/ Knowledge

This HPMP-II IS project will further develop and promote active application of learning, knowledge and information management products and tools (e.g. e-learning course, on-line certification, on-line registration and reporting of HCFC consumption, etc.) on various aspects of HCFC management and will closely cooperate with various VET institutions and think-tanks.

3.8/ Sustainability, Scaling Up Potential, Gender Mainstreaming

The project will be implemented under National Implementation Modality (NIM), with MEPA being an implementing partner for the project. The latter will designate NOO to serve as a National Project Director (NPD). All together will ensure strong government engagement in project activities, better alliance with national policies and management systems as well as effective inter-agency cooperation.

The project will continue strengthening Georgia's capacities at all system, institutional and staff-level for effective implementation of the Montreal Protocol in Georgia. The project will continue on-the-job and peer-to-peer trainings of customs officers, environmental inspectors and RAC technicians on various aspects of HCFC management. Moreover, it will adjust, diversify and widely apply e-learning programmes/tools specifically designed for on-line training of representatives of relevant public and non-public/private institutions that will make the entire learning platform structured and sustainable.

In terms of scaling up potential, HPMP-II will provide TA to demonstration projects as well as will conduct advocacy and information campaign in case of their success will serve a good basis for replication among various businesses.

For potential collaboration and scaling up of demonstration projects, following ongoing initiatives can be considered:

- the EU4Business Initiative that made available incentive grants and loans for private sector for the acquisition and installation of energy efficient and innovative technologies not yet widely available locally
- The E5P - Eastern Europe Energy Efficiency and Environment Partnership that provided funds for technology transfer for municipal projects
- Finance and Technology Transfer Centre for Climate Change (FINTECC) programme of EBRD that supports energy efficient and innovative technologies for manufacturing sector
- EU4Energy Initiative financed by the EBRD, the EU and the Federal Ministry of Finance of Austria that supports transfer of energy efficiency technologies in industries
- The GCF-EBRD Sustainable Energy Finance Facility Program "Green Economy Financing Facility Program" that aims to deliver climate finance to the private sector
- Clean Technology Fund (CTF) that allocates funds for non-annex 1 (UNFCCC) countries to invest in clean technology projects. The CTF-funded projects promote transfer of the low-carbon technologies, which have significant potential for reducing greenhouse gases in the long run.

- EU “Support to Environmental protection and fight against Climate change in Georgia” – Outcomes related to implementation of EU Industrial Emissions Directive through application of SEVESO and BAT Guidelines.

Concerning environmental and social sustainability of the project, strengthened national capacities at system, institutional and staff-level as well as enhanced knowledge and capacities of businesses to convert their technologies/practices to ODS friendly ones, will ensure effective phase down of ODS thus, contributing to local and global environmental sustainability. Details are in included in SEP screening stool annexed to this ProDoc.

Concerning gender mainstreaming, the project will ensure fair and equal participation of both male and female stakeholders in all project activities, including education and training, stakeholder consultations/workshops, awareness and promo actions. More specifically, in the design of programme activities due consideration was given to the identification of gender aspects and applicable gender mainstreaming tools. For this purpose, the Gender Results and Indicators adopted by the ExCom decision 84/73 was taken as a guiding document to ensure gender mainstreaming in the programme activities. Given that the refrigeration and air conditioning sector in Georgia is dominated by men, following mainstreaming tools are considered applicable and feasible:

- gender-responsible capacity building – attention will be paid to the engagement of women experts in developing training/educational materials, serve as trainers and/or participate in trainings. Furthermore, efforts will be made to encourage female students’ enrolment in vocational schools’ educational programme on refrigeration and air condition.
- gender responsive knowledge management – executing agencies will ensure that women and men have equal access to information. This will be ensured through providing equal access to training and awareness material including through online means. Furthermore, awareness campaigns will equally target both sexes to multiply the effect. For example, when promoting the use of low-GWP and energy efficiency cooling and refrigeration equipment due attention will be paid to gender roles i.e., women’s influence on decision making in families regarding the purchase of home appliances - ACs and refrigerators, etc.
- documents developed under the project are gender sensitive – executing agencies and implementing partners will ensure that produced training and awareness raising materials include gender specific content regarding the impacts of ODS that has been handled through recovery, recycling and reclamation.
- the gender responsive human resources management – executing agencies will make efforts to encourage women to apply and keep a track of the number and percentage of male and female consultants/experts/technical assistants recruited through the project. Furthermore, in PEB gender balance will be maintained.

Since the RAC sector represents a sector vastly dominated by male workers, the numbers of female technicians to be trained are usually low. At the same time, in trainings for the Customs Department and Inspectorate attention will be paid that 20% to 50% of attendees represent women. Furthermore, female experts will be encouraged to apply for the position of trainers. Detailed reporting will be available during the implementation and as part of tranche’s requests.

IV. PROJECT MANAGEMENT

Cost Efficiency and Effectiveness

NIM modality with CO support is applied to the project which guarantees the most effective and efficient allocation and spending of MLF resources. Moreover, since the project will be managed on a daily basis by Programme Manager of Enabling Activities Programme, this will guarantee better synergy of all UNDP ODS activities and effective and efficient allocation and utilization of financial, technical and human resources.

Throughout the implementation of the HPMP Stage II, the National Ozone Unit in cooperation with the Climate Change Service of MEPA will seek additional resources for climate co-benefits. For this purpose, co-financing opportunities will be explored from ongoing and planned climate initiatives to facilitate the scaling up of demonstration projects.

The Standard Letter of Agreement on Provision of Support Services to the Implementing Partner is attached to this project document (Annex V). Support services include the procurement of goods and services and the recruitment of project and programme personnel and will be implemented in accordance with the UNDP regulations, rules, policies and procedures. The UNDP country office may provide support services for assistance with reporting requirements and direct payment as well. Direct Project Costs (DPC) associated with the mentioned services will be charged to the project budget, using the Universal Price List.

Project Management

The project office will be based in Tbilisi Georgia, with no regional/local offices to be opened in any of regions of Georgia.

V. RESULTS FRAMEWORK[8]

Intended Outcome as stated UNSDCF 2021-2025: Outcome 5: By 2025, all people, without discrimination, enjoy enhanced resilience through improved environmental governance, climate action and sustainable management and use of natural resource(s) in Georgia **UNDP Country Programme Document (CPD) 2021-2025 OUTCOME 2:** Communities enjoy greater resilience through enhanced institutional and legislative systems for environment protection, sustainable management of natural resources and disaster risk reduction/**2.1 output /**enhanced environmental governance and institutional capacity to enable rational, equitable and sustainable use of natural/land resources, to ensure conservation of ecosystems, use of innovative and climate-friendly technologies for inclusive green economy, energy efficiency and clean energy production, and make communities more resilient to environmental shocks
Outcome indicators as stated in the Country Programme [or Global/Regional] Results and Resources Framework, including baseline and targets: **Country Programme Document (CPD) 2021-2025:** Indicator 2.1.3: Number of initiatives aimed at capacity-building for government and other stakeholders in mainstreaming gender in formulating, monitoring and implementing national climate change policies and plans. **Baseline (2020): 0** **Indicator 2.2.2. Number of gender-responsive technological solutions, initiatives/projects, per LTLEDS in place/applied Baseline: LTLEDS under elaboration, 0 projects/initiatives Target (2025): 3**
Applicable Output(s) from the UNDP Strategic Plan (2022-2025): UNDP Strategic Plan 2022-2025 Output 1.1: The 2030 Agenda, Paris Agreement and other intergovernmentally-agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions
Project title and Atlas Project Number: Project Title: HCFC Total Phase-out Management Plan (HPMP) - Second (2nd) Stage (Project: 00104411 / Output: 00130228)

EXPECTED PROJECT OUTPUTS	INDICATORS	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)					DATA COLLECTION METHODS & RISKS
			Value	Year	by end of first tranche	by end of 2nd trance	by end of 3rd tranche	by end of 4th tranche	Final	
Outcome: progressive reduction of HCFC consumption in RAC and Solvent Sector achieve, with minimum economic and social impacts	*Outcome indicator: % reduction in HCFC consumption in RAC*		*Progress reports, monitoring and verification reports, HCFC surveys*	34%	2021		*67.5%*		*97.5%*	*97.5%*
1. Legal-regulatory, policy and institutional support	*1.1.1 # of online registration, permitting and reporting systems;* *1.1.2 # of trainings on application of online registration system;* *1.1.3 # of training participants (gender disaggregated).* *1.2.1: # of regulations on GPP;* *1.2.2: # of workshops of GPP;*	*Project progress reports and deliverables, minutes and resolutions/decisi*	*1.1.1: 0;* *1.1.2 :0;* *1.1.3: 0.* *1.2.1: 0;* *1.2.2: 0;* *1.2.3: 0;* *1.2.4:0.*	2021	*1.1.1: 1;* *1.1.2: 1;* *1.1.3: 30,* *1.2.1: 1;* *1.2.2: 1;* *1.2.3: 20.* *1.2.4: 2.*	*1.4: 1.* *1.6.3: 1.*			*1.1.1: 1;* *1.1.2: 1;* *1.1.3: 30,* *1.2.1: 1;* *1.2.2: 1;* *1.2.3: 20,* *1.2.4: 2.*	*Method: annual project reviews, desk study of reports, interviews with stakeholders, evaluation score cards* *Risk: consultant not to deliver the product; consultant to deliver poor quality product;*

[8] UNDP publishes its project information (indicators, baselines, targets and results) to meet the International Aid Transparency Initiative (IATI) standards. Make sure that indicators are S.M.A.R.T. (Specific, Measurable, Attainable, Relevant and Time-bound), provide accurate baselines and targets underpinned by reliable evidence and data, and avoid acronyms so that external audience clearly understand the results of the project.

EXPECTED PROJECT OUTPUTS	INDICATORS	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)					DATA COLLECTION METHODS & RISKS
			Value	Year	by end of first tranche	by end of 2nd trance	by end of 3rd tranche	by end of 4th tranche	Final	
	1.2.3: # of GPP workshop participants (gender disaggregated); *1.2.4: # legislative changes on ban of the import of HCFC-based equipment.* *1.3.1 # studies on policy options for incentivizing the HCFC reuse management; 1.3.2 # of packages of legislative changes; 1.3.3: # of studies on feasible infrastructure and business model for R&R.* *1.4 # of regulations for labelling reclaimed refrigerants and placing them on the market* *1.5.1 # of professional standards for Level 4 technicians; 1.5.2 # of practical exam in the certification process.* *1.6.1 # of feasibility studies on introducing MEPS; 1.6.2: appropriate energy efficiency levels for the local market (yes/no); 1.6.3: # of packages of legislative changes. (to be financed through parallel funding).* *1.7.1 # of studies on incentives import and use of zero-low GWP based RAC systems; 1.7.2: # of packages of legislative change on zero-low GWP based RAC systems.* *1.8 # of revisions to standards for Safety and Environmental Requirements.*	*ons of board meetings , stakeholders feedback, official legal journals.*	*1.3.1: 0; 1.3.2: 0, 1.3.3: 0.* *1.4: 0* *1.5.1: 0; 1.5.2: 0.* *1.6.1:0;* *1.6.2: 0; 1.6.3: 0.* *1.7.1: 0;* *1.7.2: 0. 1.8 0 (present standard needs update).*		*1.3.1: 1;* *1.3.2: 1;* *1.3.3: 1.* *1.5.1: 1;* *1.5.2: 1.* *1.6.1: 1;* *1.6.2:2;* *1.6.3:0.* *1.7.1: 1;* *1.7.2: 1.* *1.8: 2.*				*1.3.1: 1;* *1.3.2: 1;* *1.3.3: 1.* *1.4: 1.* *1.5.1: 1;* *1.5.2: 1.* *1.6.1: 1;* *1.6.2: 2;* *1.6.3: 3.* *1.7.1: 1;* *1.7.2: 1.* *1.8: 2.*	*regulations, standards are not adopted.*
2. Awareness, training, capacity building	*2.1.1 # of ToT trainings on safe use and handling of zero-low GWP refrigerants and energy efficiency improvements of RAC equipment; 2.1.2: # of trainers (gender disaggregated); 2.1.3: # of positive responses on the quality of trainings.* *2.2: # of guidance documents on refrigerant leakage control and safe handling of flammable/toxic refrigerants and mini demonstration project on Zero Leaks.* *2.3.1 : # of trainings for technicians on good refrigeration practices and alternative refrigerants; 2.3.2 # of trainees, (gender disaggregated); 2.3.3: # of positive responses on trainings.*	*Project progress reports, training reports and deliverables, minutes and resolutions/decisions of board meetings , stakehold*	*2.1.1: 0; 2.1.2:0; 2.1.3: 0.* *2.2: 0.* *2.3 series of trainings during HPMP-I.* *2.4: 0.* *2.5: series trainings during HPMP-I.* *2.6: series trainings*	2021	*2.1.1: 2; 2.1.2 20,* *2.1.3: 80%.* *2.3.1: 2;* *2.3.2: 50,* *2.3.3: 80%.* *2.4.1: 1;* *2.4.2: 2.* *2.5.1: 2;* *2.5.2: 50, 20%-50% women; 2.5.3: 1000; 2.5.4: 80%.*	*2.2: 1* *2.3.1: 2; 2.3.2: 50, 2.3.3: 80%.* *2.5.1:1;* *2.5.2: 25, 20%-50% women; 2.5.4: 80%* *2.6.1: 2; 2.6.2: 40, 20%-50% women; 2.6.3: 80%.*	*2.3.1: 1; 2.3.2: 25, 2.3.3: 80%.* *2.5.1:2;* *2.5.2: 50, 20%-50% women; 2.5.4: 80%.* *2.6.1: 2; 2.6.2: 40, 20%-50% women; 2.6.3: 80%.* *2.10.1: 2; 2.10.2: 5; 2.10.3: 40*	*2.3.1: 3; 2.3.2: 75, 2.3.3: 80%.* *2.5.1: 3, 2.5.2: 150, 20%-50% women; 2.5.4: 80%.* *2.6.1: 2; 2.6.2: 30, 20%-50% women; 2.6.3: 80%.* *2.9.1: 1; 2.9.2: 60, 2.9.3: 80%.*	*2.1.1: 2; 2.1.2: 20, 2.1.3: 80%.* *2.2: 1* *2.3.1: 8;* *2.3.2: 200,* *2.3.3: 80%.* *2.4.1: 1;* *2.4.2: 2.* *2.5.1: 8;* *2.5.2: 250, at 20%-50% women; 2.5.3: 1000;* *2.5.4: 80%.* *2.6.1: 8;*	*Method: trainings reports, annual project reviews, study of training reports and other audo-visual evidence, interviews with stakeholders, evaluation score cards.* *Risk: poor quality of trainings; frequent rotation of customs officers and thus, lost institutional capacity.*

EXPECTED PROJECT OUTPUTS	INDICATORS	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)					DATA COLLECTION METHODS & RISKS
			Value	Year	by end of first tranche	by end of 2nd trance	by end of 3rd tranche	by end of 4th tranche	Final	
	2.4.1 # of tests for certification; 2.4.2 # of versions of written test. *2.5.1 # of trainings of customs officers on the import controls for ODS/non-ODS;* *2.5.2: # of trainees, including women;* *2.5.3: # of copies of customs Quick Tool for Screening ODS;* *2.5.4: # of positive responses on trainings.* *2.6.1 # of trainings for environmental inspectors on the control of compliance with the ODS regulations;* *2.6.2: # of trainees, including women;* *2.6.3: # of positive responses on trainings.* *2.7.1 # of on-line TA programme;* *2.7.2: # of awareness campaigns on feasible business model for R&R;* *2.7.3 # communication plans developed and implemented.* *2.8. # of revisions to curriculum of the accredited vocational education programme to adequately reflect RRR and EE related issues in the programme.* *2.9.1: # of multi-stakeholder conferences on the state-of-art technologies with focus on zero-low GWP alternative refrigerants, energy efficient systems and building;2.9.2 # of participants (gender disaggregated);;2.9.3 # of positive responses on the conference.* *2.10.1: # of round-table meetings; 2.10.2 # of participant agencies; 2.10.3: # of participants (gender disaggregated);*	*ers feedback.*	*during HPMP-I.* *2.7:0.* *2.8: 0.* *2.9:0.* *2.10:0.*		*2.6.1: 2; 2.6.2: 40, 20%-50% women;* *2.6.3: 80%.* *2.8: 1.* *2.10.1: 3; 2.10.2: 5; 2.10.3:60,*	*2.7.1: 1; 2.7.2: 1; 2.7.3: 1.* *2.10.1: 3; 2.10.2: 5; 2.10.3: 60*		*2.10.1: 2; 2.10.2: 5; 2.10.3:40*	*2.6.2: 150, 20%-50% women; 2.6.3: 80%.* *2.7.1: 1;* *2.7.2: 1;* *2.7.3: 1.* *2.8: 1.* *2.9.1: 1;* *2.9.2: 60, 2* *.9.3: 80%.* *2.10.1:10; 2.10.2:5;* *2.10.3: 200*	
3. Demonstration projects	*3.1 # of studies on obstacles of technology transfer/inflow and recommendations to address them.* *3.2 # of SoW for demo programme, including priority technologies* *3.3.1 # of RAC demo projects successfully implemented; 3.3.2 % share of co-financing.* *3.4 Quantities of HCFC reduced.*	*Project progress reports and deliverables, minutes and resolutions/decisi*	*3.1: 0.* *3.2:0.* *3.3: 1,up to 50% co-financing.* *3.4 100 Kg HCFC phased-out*	*2021*	*3.1: 1.* *3.2: 1.*	*3.3.1: 3; 3.3.2: %50.* *3.4: 120 kg direct reduction; 2,500 kg HCFC phase-out as a result of the*			*3.1:1* *3.2: 1* *3.3: 3, 50% co-financing* *3.4: 120 kg direct reduction; 2,500 kg HCFC phase-out as a result of*	*Method: annual project reviews, study reports, interviews with stakeholders, evaluation score cards.* *Risk: low willingness and affordability of end-users/business companies to participate;*

EXPECTED PROJECT OUTPUTS	INDICATORS	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)					DATA COLLECTION METHODS & RISKS
			Value	Year	by end of first tranche	by end of 2nd trance	by end of 3rd tranche	by end of 4th tranche	Final	
	3.5.1 # promotion workshops; *3.5.2 # of participants (gender disaggregated);* *3.5.3 # of positive responses from participants.*	*ons of board meetings , stakeholders feedback.*	*as a result of the demo project.*			*demo projects' spin-off and scaling up effect.* *3.5.1: 2;* *3.5.2: 120* *3.5.3: 80%.*			*the demo projects' spin-off and scaling up effect.* *3.5.1: 2;* *3.5.2: 120,* *3.5.3: 80%.*	*Market unavailability of alternatives and/or alternative technologies; application of environmentally unsafe technologies and risk on negative impacts on environment due to improper after-care of applied technologies.*
4. Technical assistance to support good servicing practices in the refrigeration sector	*4.1 # pieces of HCFC customs control equipment.* *4.2.1 A list of necessary equipment and bill of quantity developed (yes/no);* *4.2.2 # of service centres (CRRRs) equipped;* *4.2.3:# of technicians equipped.* *4.3: # of option analysis studies on ODS waste storage.* *4.4.1 # of VETs with upgraded training installations;* *4.4.2 # of students applying upgraded training installations (gender-dosaggregated).* *4.5. Stakeholder coordination events.*	*Project progress reports, training reports and other audio-visual evidence, stakeholders feedback.*	*4.1.1 certain pieces of equipment* *4.1.2: limited scale application*	*2021*	*4.1.1:15 ODS identifiers; 10-15 leak detectors; PPE # TBD.* *4.2.1: yes.* *4.5: 3.*	*4.2.2: 3;* *4.3:1* *4.5: 3.*	*4.2.3 160.* *4.4.1: 3;* *4.4.2: tbd.* *4.5:3.*	*4.5: 1*	*4.1.1: 15 ODS identifiers; 10-15 leak detectors; PPE # TBD.* *4.2.1: yes;* *4.2.2: 3;* *4.2.3: 160.* *4.4.1: 3;* *4.4.2: tbd .* *4.5: 10.*	*Monitoring, annual project reviews, verifications, evaluation.* *Risk: poor quality of equipment; inability of target groups to proper O/M of equipment; low rate/no application of equipment and learning management tools.*
5. **Project implementation, monitoring and evaluation**	*5.1 # of board meetings* *5.2 # of project reviews;* *5.3 # of project audits.*	*Project progress reports, minutes and resolutions/decisions of board meetings , mission reports, stakeholders feedback.*	*5.1-5.3: Ongoing IS and HPMP tranche 4 projects with fully functional project management arrangement*	*2021*	*5.1: 6* *5.2: 3* *5.3:3*	*5.1: 6* *5.2: 3* *5.3:3*	*5.1: 6* *5.2: 3* *5.3:3*	*5.1: 4* *5.2: 2* *5.3:2*	*5.1: 22* *5.2: 11* *5.3: 11*	*Method: annual project reviews, meetings* *Risk: Weak engagement of line ministries in PEB*

VI. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans.

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Quarterly, or in the frequency required for each indicator.	Slower than expected progress will be addressed by project management.		
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.		
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At least annually	Relevant lessons are captured by the project team and used to inform management decisions.		
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Bi-Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.		
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.		
Project Report	A progress report will be presented to the Project Board and key stakeholders, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk long with mitigation measures, and any evaluation or review reports prepared over the period.	Annually, and at the end of the project (final report)	Progress reports will be prepared and discussed at the project Board		
Project Review (Project Board)	The project's governance mechanism (i.e., project board) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.	at least annually	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.		

VII. ANNUAL WORK PLAN (AWP)

Total budget of HPMP Stage II

Components	Key activities planned	Funding request (US $)				TOTAL
		Tranche 1	Tranche 2	Tranche 3	Tranche 4[9]	
		2022 - 2024	2025 - 2027	2028 -2029	2030	
Component 1: Legal and Regulatory Measures	**Activity 1.1.** Complete and operationalize the web-based electronic reporting and permit system for HCFC import and consumption; conduct training for end-users and technicians for using the electronic reporting tool	6,000				6,000
	Activity 1.2. Develop necessary legislative acts for introducing Green Public Procurement (GPP) criteria for procuring environmentally friendly RAC systems and services and conducting a workshop for procurement staff of the respective institutions; Develop amendments to Georgian law on Ambient Air Protection and in Code of Administrative Offenses for Introduction of a ban on the import of HCFC-based equipment.	8,000				8,000
	Activity 1.3. Carry out a detailed study on policy options for incentivizing the HCFC reuse management; develop necessary legislative changes as required; Carry out study on feasible infrastructure and business model for R&R	11,000				11,000
	Activity 1.4. Develop regulations for labelling reclaimed refrigerants and placing them on the market		4,000			4,000
	Activity 1.5. Developing professional qualification standards for the Level 4 Technicians; introduce practical exam in the certification process	2,000				2,000
	Activity 1.6. Conduct a detailed feasibility study on introducing MEPS and define the appropriate energy efficiency levels for the local market; develop necessary legislative changes as required. TO BE FINANCED THROUGH PARALELL FUNDING					0
	Activity 1.7. Conduct a study on policy options for incentivizing import and use of zero-low GWP based RAC systems and develop necessary legislative changes as required**.**	3,000				3,000
	Activity 1.8. Update the Standards for Safety and Environmental Requirements	2,000				2,000
SUB-TOTAL of Component 1		32,000	4,000	0	0	36,000
Component 2: Capacity building training	**Activity 2.1.** Organize 2 Training of Trainers (4-days each) for up to 20 trainers/vocational school teachers on safe use and handling of zero-low GWP refrigerants and energy efficiency improvements of RAC equipment	20,000				20,000
	Activity 2.2: Develop a guideline on refrigerant leakage control and safe handling of flammable/toxic refrigerants and mini demonstration project on zero leaks.		2,250			2,250

[9] Final tranche will be issued to Georgia, with a condition that the:

1. The Government of Georgia will develop and submit a detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption was in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the 2030-2040 period;
2. The Government of Georgia will develop and submit the report on expected annual HCFC consumption in Georgia for the 2030-2040 period;

Components	Key activities planned	Funding request (US $)				TOTAL
		Tranche 1	Tranche 2	Tranche 3	Tranche 4[9]	
		2022 - 2024	2025 - 2027	2028 -2029	2030	
	Activity 2.3: Organize 8 training courses (4-days each) for up to 200 technicians on good refrigeration practices and alternative refrigerants	**14,000**	**14,000**	**7,000**	**21,000**	**56,000**
	Activity 2.4: Develop test for practical exams to be integrated in the certification examination; develop additional multiple versions of test for written examination.	**3,750**				**3,750**
	Activity 2.5. Organize 8 trainings (2-days each) on the import controls for ODS/non-ODS for up to 250 customs officers. Develop Customs Quick Tool for Screening ODS and print around 1,000 copies.	**9,000**	**4,500**	**9,000**	**13,500**	**36,000**
	Activity 2.6. Organize 8 two days trainings (2-days each) for up to 150 environmental inspectors on the control of compliance with the ODS regulations	**7,000**	**7,000**	**7,000**	**7,000**	**28,000**
	Activity 2.7. Carry out online technical assistance programme for technicians /end-users of RAC during up to 2 years. Raise awareness of SH on feasible business model for R&R infrastructure; Develop and implement communication plan.		**24,600**			**24,600**
	Activity 2.8. Revise and update the curriculum of the accredited vocational education programme to adequately reflected RRR and EE related issues in the programme.	**3,000**				**3,000**
	Activity 2.9: Organize a conference for up to 60 participants on the state-of-art technologies with focus on zero-low GWP alternative refrigerants, energy efficient systems and building designs.				**3,000**	**3,000**
	Activity 2.10: Organize 10 roundtable meetings for policy dialogue to facilitate the alignment of policies across respective sectors and reinforce the HCFC phase-out and PFC phase-down in the country.	**1,500**	**1,500**	**1,000**	**1,000**	**5,000**
SUB-TOTAL of Component 2		**58,250**	**53,850**	**24,000**	**45,500**	**181,600**
II. INVESTMENT ACTIVITIES						
Component 3: Demonstration projects	**Activity 3.1:** Carry out analysis of obstacles of technology transfer/inflow and propose recommendations to address them	**4,000**				**4,000**
	Activity 3.2. Develop detailed scope for the technology demonstration programme, define priority technologies to be applied.	**6,000**				**6,000**
	Activity 3.3. Design and implement demo projects with focus on the natural refrigerants, with up to 50% co-financing		**84,500**			**84,500**
	Activity 3.4: Organize 2 workshops to present the outcomes of demonstration projects and applied technology		**2,400**			**2,400**
SUB-TOTAL of Component 3		**10,000**	**86,900**	**0**	**0**	**96,900**
Component 4: Technical assistance to support good servicing practices in the refrigeration sector	**Activity 4.1:** Supply the Customs Department with the basic set of up to 15 refrigerant identifiers and 15 leak detectors along with personal protective equipment (PPE) (protective glasses, gloves) and spare parts for equipment.	**67,500**				**67,500**
	Activity 4.2a,b. Supply 3 Services centres and individual technicians with equipment and tools in regional cities/towns.		**65,000**	**44,000**		**109,000**
	Activity 4.2c. Technical Consultancy service on specifications of all equipment to be purchased.	**3,000**				**3,000**

Components	Key activities planned	Funding request (US $)				TOTAL
		Tranche 1	Tranche 2	Tranche 3	Tranche 4[9]	
		2022 - 2024	2025 - 2027	2028 -2029	2030	
	Activity 4.3. Conduct a study to assess the infrastructure options for long-term on-site storage of used ODS. The study will also include a detailed cost assessment for establishment and maintenance of such storage facility.		**4,000**			**4,000**
	Activity 4.4. Upgrading training installations in 3 vocation schools			**21,510**		**21,510**
	Activity 4.5. Stakeholder coordination, advisory, and oversight of components	3,100	3,100	3,100	3,100	**12,400**
SUB-TOTAL of Component 4		**73,600**	**72,100**	**68,610**	**3,100**	**217,410**
Component 5: Project implementation, monitoring and evaluation	Project management related costs	**16,989**	**19,112**	**6,371**	**10,618**	**53,090**
SUB-TOTAL of Component 5		**16,989**	**19,112**	**6,371**	**10,618**	**53,090**
TOTAL		**190,839**	**235,962**	**98,980**	**59,218**	**585,000**
Percentage per tranche from the grand total, %		**32.62**	**40.34**	**16.92**	**10.12**	**100.00**

Tranche I and schedule for HPMP Stage II

Components	Key activities planned in tranche 1 of the HPMP stage II	Expected completion time	Tranche 1 funding request (US $)
Component 1: Legal and Regulatory Measures	**Activity 1.1.** Complete and operationalize the web-based electronic reporting and permit system for HCFC import and consumption; conduct training for end-users and technicians for using the electronic reporting tool.	Dec-22	**6,000**
	Activity 1.2. Develop necessary legislative acts for introducing Green Public Procurement (GPP) criteria for procuring environmentally friendly RAC systems and services; conduct workshop on GPP; develop amendments to the law on Ambient Air Protection and the Code of Administrative Offenses to introduce a ban on the import of HCFC-based equipment.	31 Dec-23	**8,000**
	Activity 1.3. Carry out a detailed study on policy options for incentivizing the HCFC reuse management; develop necessary legislative changes as required.	31 Dec-23	**11,000**
	Activity 1.5. Developing professional qualification standards for the Level 4 Technicians; introduce practical exam in the certification process.	31 Dec-22	**2,000**
	Activity 1.7. Conduct a study on policy options for incentivizing import and use of zero-low GWP based RAC systems and develop necessary legislative changes as required.	31 Dec-23	**3,000**

Components	Key activities planned in tranche 1 of the HPMP stage II	Expected completion time	Tranche 1 funding request (US $)
	Activity 1.8. Update the Standards for Safety and Environmental Requirements	Mar-24	**2,000**
Sub-total Component 1			**32,000**
Component 2: Capacity building and training	**Activity 2.1.** Organize 2 Training of Trainers (4-days each) for up to 20 trainers/vocational school teachers on safe use and handling of zero-low GWP refrigerants and energy efficiency improvements of RAC equipment	31 Dec-23	**20,000**
	Activity 2.3: Organize 2 out of 8 trainings (4-days each) for up to 200 technicians on good refrigeration practices and alternative refrigerants	Dec-24	**14,000**
	Activity 2.4: Develop test for practical exams to be integrated in the certification examination; develop additional multiple versions of test for written examination.	Dec-23	**3,750**
	Activity 2.5. Organize 2 out of 8 trainings on the import controls for ODS/non-ODS for customs officers. Develop Customs Quick Tool for Screening ODS and print around 1,000 copies.	Dec-24	**9,000**
	Activity 2.6. Organize 2 out 8 trainings for environmental inspectors on the control of compliance with the ODS regulations.	Dec-24	**7,000**
	Activity 2.8. Revise and update the curriculum of the accredited vocational education programme to adequately reflected RRR and EE related issues in the programme. The programme will also integrate a module on the Good Practice in RAC System Service and Standard (# SST 70).	Dec-24	**3,000**
	Activity 2.10: Organize 3 out of 10 roundtable meetings for policy dialogue to facilitate the alignment of policies across respective sectors and reinforce the HCFC phase-out and PFC phase-down in the country.	Dec-24	**1,500**
SUB-TOTAL Component 2			**58,250**
SUB-TOTAL Non-Investment			**90,250**
II. INVESTMENT ACTIVITIES			
Component 3: Demonstration projects	**Activity 3.1:** Carry out analysis of obstacles of technology transfer/inflow and propose recommendations to address them	Dec-24	**4,000**
	Activity 3.2. Develop detailed scope for the technology demonstration programme, define priority technologies to be applied.	Dec-24	**6,000**
SUB-TOTAL Component 3			**10,000**
Component 4: Technical assistance to support good servicing practices in the refrigeration sector	**Activity 4.1:** Supply the Customs Department with the basic set of refrigerant identifiers&leak detectors.	Dec-24	**67,500**
	Activity 4.2c. Technical Consultancy service on specifications of all equipment to be purchased.	Dec-24	**3,000**
	Activity 4.5. Stakeholder coordination, advisory, and oversight of components	Dec-24	**3,100**
SUB-TOTAL Component 4			**73,600**
SUB-TOTAL of Investment			**83,600**

Components	Key activities planned in tranche 1 of the HPMP stage II	Expected completion time	Tranche 1 funding request (US $)
Component 5: Project implementation, monitoring and evaluation	Project management related costs		**16,989**
TOTAL			**190,839**

Atlas AWP for Tranche I

2022 AWP

PLANNED ACTIVITIES	**Responsible Party**	**PLANNED BUDGET OF REMAINNG FUNDS FROM PREVIOUS TRANCHES**				**BUDGET NOTES**
List activity results and associated actions		Funding Source	Budget code	Budget Description	Amount (US$)	
1. Legal-regulatory and institutional support	MEPA	MLF (63080)	71300	Local consultants	6,000	1. Local consultant to assist in finalizing and operationalizing the web-based electronic reporting and permit system for HCFC import and consumption – 200 US$ daily rate times 20 man/days=4,000 US$; 2. Local consultant to develop necessary legislative acts for introducing Green Public Procurement (GPP) criteria for RAC systems and services and necessary amendments to existing relevant laws – US$ 200 US$ daily fee times 15 man/days = US$ 3,000.3. Location consultant to develop professional qualification standards for the Level 4 Technicians as well as to develop a practical exam in the certification process – 200 US$ daily rate times 10 man/days = 2,000 US$
	MEPA	MLF (63080)	75700	Trainings, workshops, conferences	2,000	1 training on application of on-line system
TOTAL ACTIVITY 1					**8,000**	
2. Capacity building, training	MEPA	MLF (63080)	72100	contractual service companies	10,000	Organize 1 Training of Trainers (4-days each) for up to 20 trainers/vocational school teachers on safe use and handling of zero-low GWP refrigerants and energy efficiency improvements of RAC equipment, trainers salary and training costs
		MLF (63080)	72100	contractual service companies	4,000	Organize 1 training courses (2-days each) for up to 60 technicians on good refrigeration practices and alternative refrigerants
	MEPA	MLF (63080)	72100	contractual service companies	3,000	Organize 1 out of 8 trainings on the import controls for ODS/non-ODS for customs officers. Develop Customs Quick Tool for Screening ODS and print around 400 copies

PLANNED ACTIVITIES	Responsible Party	PLANNED BUDGET OF REMAINNG FUNDS FROM PREVIOUS TRANCHES				BUDGET NOTES
List activity results and associated actions		Funding Source	Budget code	Budget Description	Amount (US$)	
	MEPA	MLF (63080)	72100	contractual service companies	2,000	Organize 1 out 8 trainings for environmental inspectors on the control of compliance with the ODS regulations.
	MEPA	MLF (63080)	72100	Trainings, workshops, conferences	500	1 round table discussion for policy dialogue to facilitate the alignment of policies across respective sectors and reinforce the HCFC phase-out and PFC phase-down in the country - US$ 500 per event
TOTAL ACTIVITY 2					**19,500**	
4. Technical assistance to support good servicing practices in the refrigeration sector	MEPA	MLF (63080)	74500	Trainings, workshops, conferences	1,000.00	Stakeholder coordination, advisory, and oversight of components
TOTAL ACTIVITY 4					**1,000.00**	
5. Project implementation, monitoring and evaluation	MEPA	MLF (63080)	71400	Contractual services - individuals	4,989	Project manager – part-time and assistant – part-time for 9 months
TOTAL Project mgmt.					**4,989**	
GRAND TOTAL					**33,489.00**	

2023 AWP

PLANNED ACTIVITIES	Responsible Party	PLANNED BUDGET OF REMAINNG FUNDS FROM PREVIOUS TRANCHES	BUDGET NOTES

PLANNED ACTIVITIES	Responsible Party	PLANNED BUDGET OF REMAINNG FUNDS FROM PREVIOUS TRANCHES				BUDGET NOTES
List activity results and associated actions		Funding Source	Budget code	Budget Description	Amount (US$)	
List activity results and associated actions		Funding Source	Budget code	Budget Description	Amount (US$)	
1. Legal-regulatory and institutional support	MEPA	MLF (63080)	71300	Local consultants	6,000	3.Carry out a detailed study on policy options for incentivizing the HCFC reuse management; develop necessary legislative changes as required
					3,000	Conduct a study on policy options for incentivizing import and use of zero-low GWP based RAC systems and develop necessary legislative changes as required.
TOTAL ACTIVITY 1					**9,000**	
2. Capacity building, training	MEPA	MLF (63080)	72100	contractual service companies	10,000	Organize 1 Training of Trainers (4-days each) for up to 20 trainers/vocational school teachers on safe use and handling of zero-low GWP refrigerants and energy efficiency improvements of RAC equipment ,trainers salary and training costs
	MEPA	MLF (63080)	72100	contractual service companies	5,000	Organize 2 training courses (2-days each) for up to 70 technicians on good refrigeration practices and alternative refrigerants
	MEPA	MLF (63080)	72100	contractual service companies	3,000	Organize 2 out of 8 trainings on the import controls for ODS/non-ODS for customs officers. Develop Customs Quick Tool for Screening ODS and print around 400 copies
	MEPA	MLF (63080)	72100	contractual service companies	2,000	Organize 2 out 8 trainings for environmental inspectors on the control of compliance with the ODS regulations.
	MEPA	MLF (63080)	75700	Trainings, workshops, conferences	500	1 round table discussion for policy dialogue to facilitate the alignment of policies across respective sectors and reinforce the HCFC phase-out and PFC phase-down in the country - US$ 500 per event
	MEPA	MLF (63080)	71300	Local consultants	3,750	Local consultant to develop a test for practical exams to be integrated in the certification examination and additional multiple versions of test for written examination – US$ 200 daily fee times 18.75 man/days = 3,750 US$.
TOTAL ACTIVITY 2					**24,250**	

PLANNED ACTIVITIES	Responsible Party	PLANNED BUDGET OF REMAINNG FUNDS FROM PREVIOUS TRANCHES				BUDGET NOTES
List activity results and associated actions		Funding Source	Budget code	Budget Description	Amount (US$)	
4. Technical assistance to support good servicing practices in the refrigeration sector	MEPA	MLF (63080)	71300	Local consultants	3,000	Technical Consultancy service on specifications of all equipment to be purchased.
	MEPA	MLF (63080)	75700	Trainings, workshops, conferences	1,000.00	Coordination activities (events, etc.)
TOTAL ACTIVITY 4					**4,000.00**	
5. Project implementation, monitoring and evaluation	MEPA	MLF (63080)	71400 -	Contractual services - individuals	6,000	Project management and assistant (both part-time) for 12 months
TOTAL Project mgmt.					**6,000**	
GRAND TOTAL					**43,250.00**	

2024 AWP

PLANNED ACTIVITIES	Responsible Party	PLANNED BUDGET OF REMAINNG FUNDS FROM PREVIOUS TRANCHES				BUDGET NOTES
List activity results and associated actions		Funding Source	Budget code	Budget Description	Amount (US$)	
1. Legal-regulatory and institutional support	MEPA	MLF (63080)	71300	Local consultants	8,000	Develop necessary legislative acts for introducing Green Public Procurement (GPP) criteria for procuring environmentally friendly RAC systems and services; developing amendments to the law on Ambient Air Protection and the Code of Administrative Offenses to introduce a ban on the import of HCFC-based equipment
	MEPA	MLF (63080)	71300	Local consultants	5,000	Carry out a detailed study on policy options for incentivizing the HCFC reuse management; develop necessary legislative changes as required
	MEPA	MLF (63080)	71300	Local consultants	2,000	Update the Standards for Safety and Environmental Requirements
TOTAL ACTIVITY 1					**15,000**	

PLANNED ACTIVITIES	Responsible Party	PLANNED BUDGET OF REMAINNG FUNDS FROM PREVIOUS TRANCHES				BUDGET NOTES
List activity results and associated actions		Funding Source	Budget code	Budget Description	Amount (US$)	
2.Capacity building training	MEPA	MLF (63080)	72100	contractual service companies	5,000	Organize 2 training courses (2-days each) for up to 70 technicians on good refrigeration practices and alternative refrigerants
	MEPA	MLF (63080)	72100	contractual service companies	3,000	Organize 2 out of 8 trainings on the import controls for ODS/non-ODS for customs officers. Develop Customs Quick Tool for Screening ODS and print around 400 copies
	MEPA	MLF (63080)	72100	contractual service companies	3,000	Organize 2 out 8 trainings for environmental inspectors on the control of compliance with the ODS regulations.
	MEPA	MLF (63080)	75700	Trainings, workshops, conferences	500	1 round table discussion for policy dialogue to facilitate the alignment of policies across respective sectors and reinforce the HCFC phase-out and PFC phase-down in the country - US$ 500 per event
	MEPA	MLF (63080)	71300	Local consultants	3,000	Revise and update the curriculum of the accredited vocational education programme to adequately reflected RRR and EE related issues in the programme. The programme will also integrate a module on the Good Practice in RAC System Service and Standard (# SST 70).
TOTAL ACTIVITY 2					**14,500**	
4.Technical assistance to support good servicing practices in the refrigeration sector	MEPA	MLF (63080)	71300	Local consultant	10,000	1. Local consultant to carry out analysis of obstacles of technology transfer/inflow and propose recommendations to address them – 200 US$ daily fee times 20 man/days = 4,000 US$.2. Local consultant to develop detailed scope for the technology demonstration programme, define priority technologies to be applied – 200 US$ daily fee times 30 man/days = 6,000 US$
TOTAL ACTIVITY 3					**10,000**	
3: Demonstration projects	MEPA	MLF (63080)	72200	Equipment and furniture	67,500	15 identifiers, 15 leak detectors, PPPs and spare parts
	MEPA	MLF (63080)	75700	Trainings, workshops, conferences	1,100.00	Coordination activities (events, etc.)
TOTAL ACTIVITY 4					**68,600**	

PLANNED ACTIVITIES	**Responsible Party**	**PLANNED BUDGET OF REMAINNG FUNDS FROM PREVIOUS TRANCHES**				**BUDGET NOTES**
List activity results and associated actions		Funding Source	Budget code	Budget Description	Amount (US$)	
5. Project implementation, monitoring and evaluation	MEPA	MLF (63080)	71400 -	Contractual services - individuals	**6,000**	Project manager's and assistant's costs (both part-time) cost for 12 months
TOTAL Project mgmt.					**6,000**	
GRAND TOTAL					**114,100.00**	

Time-Schedule of Activities for HPMP-II, Tranche 1

ACTIVITIES	2022				2023				2024			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 1.1. Complete and operationalize the web-based electronic reporting and permit system for HCFC import and consumption; conduct training for end-users and technicians for using the electronic reporting tool.												
Activity 1.2. Develop necessary legislative acts for introducing Green Public Procurement (GPP) criteria; Conduct a workshop for public procurement officers on GPP; Develop amendments to Georgian law for Introduction of a ban on the import of HCFC-based equipment.												
Activity 1.3. Carry out a detailed study on policy options for incentivizing the HCFC reuse management; develop necessary legislative changes as required; Carry out study on feasible infrastructure and business model for R&R.												
Activity 1.4. Develop regulations for labelling reclaimed refrigerants and placing them on the market												
Activity 1.5. Developing professional qualification standards for the Level 4 Technicians; introduce practical exam in the certification process												
Activity 1.6. Conduct a detailed feasibility study on introducing MEPS ; develop necessary legislative changes as required. TO BE FINANCED THROUGH PARALELL FUNDING												
Activity 1.7. Conduct a study on policy options for incentivizing import and use of zero-low GWP based RAC systems and develop necessary legislative changes as required												
Activity 1.8. Update the Standards for Safety and Environmental Requirements in line with "UFDIS-ISO 22712 - Refrigerating systems and heat pumps"												
Activity 2.1. Organize 2 Trainings of Trainers (4-days each) for up to 20 trainers/vocational school teachers on safe use and handling of zero-low GWP refrigerants and energy efficiency improvements of RAC equipment												
Activity 2.2: Develop a guideline on refrigerant leakage control and safe handling of flammable/toxic refrigerants and mini demonstration project on zero leaks												
Activity 2.3: Organize 8 training courses (4-days each) for up to 200 technicians on good refrigeration practices and alternative refrigerants												
Activity 2.4: Develop test for practical exams to be integrated in the certification examination; develop additional multiple versions of test for written examination.												
Activity 2.5. Organize 8 trainings (2-days each)on the import controls for ODS/non-ODS for up to 250 customs officers. Develop Customs Quick Tool for Screening ODS and print around 1,000 copies.												
Activity 2.6. Organize 8 two days trainings (2-days each) for up to 150 environmental inspectors on the control of compliance with the ODS regulations												
Activity 2.7. Carry out online technical assistance programme for technicians /end-users of RAC during up to 2 years; Raise awareness of SH on feasible business model for R&R infrastructure; Develop and implement communication plan.												
Activity 2.8. Revise and update the curriculum of the accredited vocational education programme to adequately reflected RRR issues in the programme.												
Activity 2.9: Organize a conference for up to 60 participants on the state-of-art technologies with focus on zero-low GWP alternative refrigerants, energy efficient systems and building designs.												
Activity 2.10: Organize 10 roundtable meetings for policy dialogue to facilitate the alignment of policies across respective sectors and reinforce the HCFC phase-out in the country.												
Activity 3.1: Carry out analysis of obstacles of technology transfer/inflow and propose recommendations to address them												
Activity 3.2. Develop detailed scope for the technology demonstration programme, define priority technologies to be applied.												
Activity 3.3. Design and implement demo projects with focus on the natural refrigerants, with up to 50% co-financing												
Activity 3.4: Organize 2 workshops to present the outcomes of demonstration projects and applied technology												
Activity 4.1: Supply the Customs Department and individual technicians with the basic set of up to 15 refrigerant identifiers & 15 leak detectors .												
Activity 4.2: Supply 3 Services centres and individual technicians with equipment and tools in regional cities/towns *Sub-activity 4.2.c: Technical Consultancy service on specifications of all equipment to be purchased.*												
Activity 4.3: Conduct a study to assess the infrastructure options for long-term on-site storage of reused ODS												
Activity 4.4. Upgrading training installations in 3 vocational schools												
Activity 4.5. Stakeholder coordination, advisory, and oversight of components												

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

The HPMP will be implemented by the MEPA and UNDP will provide execution support services to MEPA.

The project will have a Project Board (PB) composed of the representatives of the National Ozone Unit, MEPA, UNDP as well as the representatives of *the GARCAE and the vocational schools that offer courses for technicians*. The PB established in the Stage I will continue to perform its duties in Stage II as well. The PB will direct the project and will be the ultimate decision-maker for it. It will ensure that the project remains on course to deliver the desired outcomes of the required quality. The PB will make management decisions for the project when guidance is required by the Project Manager or when project tolerances have been exceeded. More specifically, the PB will set up tolerance levels for project stages in terms of duration and disbursement of financial resources. The PB will review and clear Annual Work Plans (AWP) and annual progress achieved by the project through Annual Project Reviews based on the approved annual work plans. PB will review and approve project activity plans and will authorize major deviations from the agreed plans. The PB is the authority that signs off on the completion of each stage plan as well as authorizes the start of the next stage plan. It will ensure that required resources are committed, will arbitrate any conflicts within the project or negotiate a solution to any problems between the project and external bodies. The PB will meet minimum once a year (more often if required). Prior to the meetings, the Project Manager will duly submit the progress report on the previous period and the plan for the next one. The PB will evaluate submitted documents and be in charge of approving plans and budgets (detailed Terms of Reference of Project Board is attached as Annex IV).

Upon demand, expansion of the PB may be considered to include other Line Ministries and stakeholders. MEPA as an implementing partner of the project will designate a National Project Director (NDP) who will support the implementation of HPMP stage II and serve as a focal point on the part of the government. The NDP will be responsible for:

- Collecting national statistics on ODS and ODS alternatives and controlling the imported amount of HCFC to keep the phase out on the right track;
- Monitoring the annual HCFCs quota system and issuance of HCFCs import authorizations;
- Assisting and liaising with the governmental stakeholders in enforcing the ODS regulations and preventing illegal trading;
- Increasing awareness on ODS and ODS alternatives among key stakeholders and the public;
- Monitoring the project progress and providing feedback;
- Ensuring project results are shared and replicated among potential beneficiaries.

The Project Management Unit (PMU) will function as a national coordinator of all project activities outlined in the progarmme and will operate under guidance of the NPD and the Ex. Board. Appropriate consultancy support will be sought externally to implement specific HPMP project components, including through consultancy services of individual consultants and subcontracted Implementing Partners. Activities will be carried out in line with the proposed HPMP Stage II budget, provided in relevant sections of the document.

As the Lead Implementing Agency for MLF, UNDP will be responsible for:

- Ensuring performance and financial verification in accordance with the agreement and with its specific internal procedures and requirements as set out in the country's phase-out plan;
- Assisting the country in preparation of the Tranche Implementation Plans and subsequent reports;
- Providing verification to the Executive Committee (ExCom) of the Multilateral Fund (MLF) for the Implementation of the Montreal Protocol that the targets have been met and associated annual activities have been completed;
- Ensuring that the experiences and progress is reflected in updates of the plan and in future tranche implementation plans consistent with the agreement;
- Fulfilling the reporting requirements for the tranches and the plan as well as project completion reports for submission to the ExCom;
- Ensuring that disbursements are monitored based consistently;
- Providing assistance with policy, management and technical support when required.

The project will undergo audits according to UNDP HACT rules and regulations.

Project Assurance – this is one of the key roles in the project management structure. The Project Assurance will act as an independent and objective quality monitoring agent, avoiding the potential "self-serving bias". In addition, the project assurance will verify the products' or outputs' quality. The Regional Technical Advisor for Chemicals at the UNDP Regional Center, Georgia UNDP Energy and Environment Team Leader, CO M&E specialist and EE Programme Associate will play the Project Assurance role.

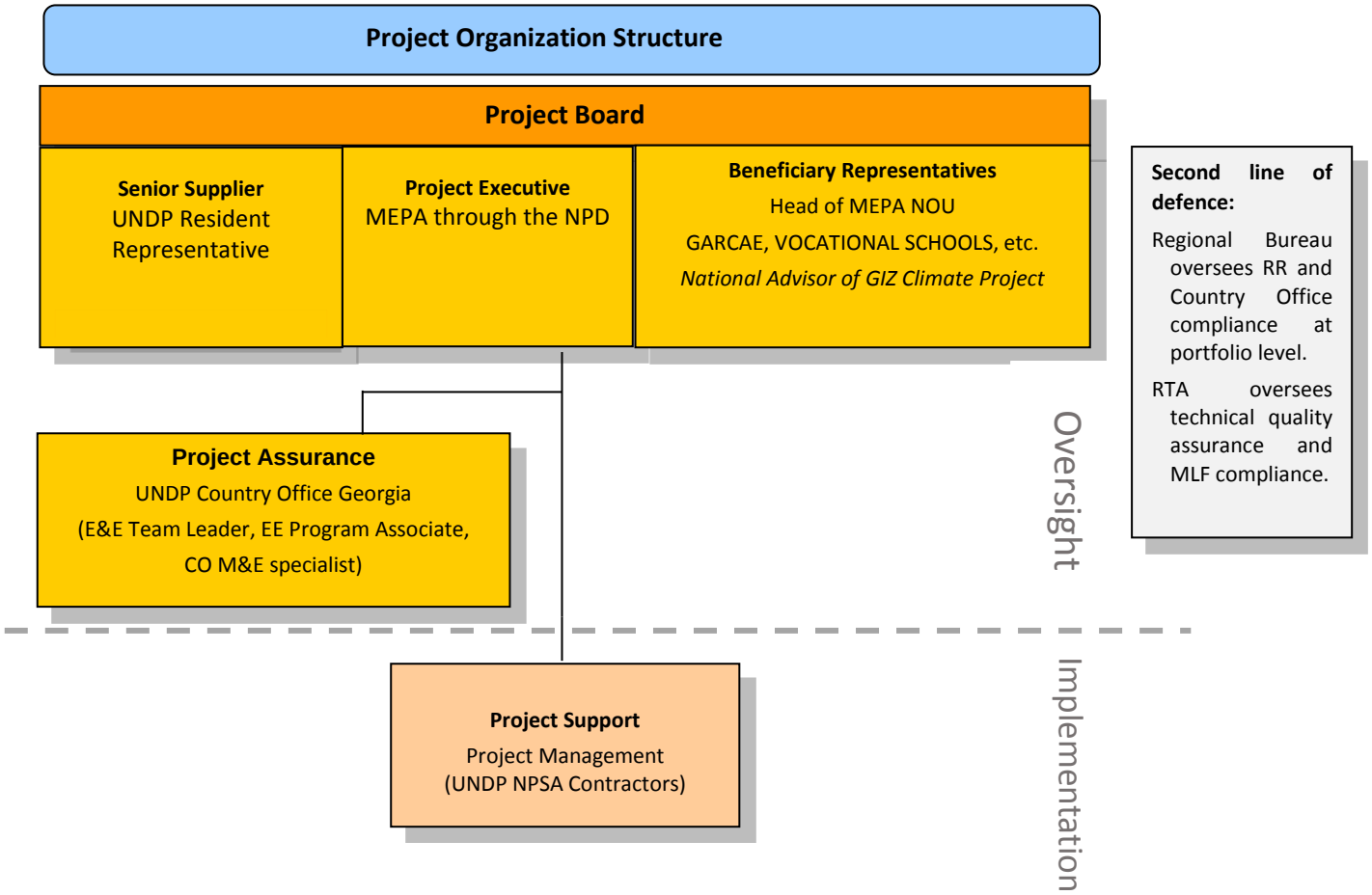
Communications

The NPD and the PMU will communicate with a variety of audiences and be in charge of keeping the stakeholders informed of the progress overall and on the most important project events. Further, they will be responsible for building and sustaining the Ministry's commitment to the project and the involvement of project stakeholders. They will maintain a high level of transparency and openness throughout the project implementation. The PMU and the Ministry will prepare promotional materials which will bear the logos of all project partners. The same standard will also apply for all other written materials and publications and will also apply to all public events.

Financial and other procedures

Payments will be performed primarily through direct payments. A letter of agreement will be signed between the MEPA and UNDP CO outlining the support services that UNDP will provide to the executing agency during the project implementation. The Project Manager will be authorized to sign payment requests to be made on the basis of the budget approved by PB. Granting external access to ATLAS system to the project personnel will be part of the standard service agreement.

In accordance with standard UNDP procedures, all resources/equipment gained through project support remains the property of UNDP until project closure when a decision will be taken as to how to dispose of these resources. It is standard practice to leave resources with the implementing partner after project closure as a contribution to the development of national capacity.



IX. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Georgia and UNDP, signed on 01/06/94. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented by the Ministry of Environmental Protection and Agriculture ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

X. RISK MANAGEMENT

Government Entity (NIM)

1. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;

b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism, that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via https://www.un.org/securitycouncil/content/un-sc-consolidated-list.

4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.
(a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").
(b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.

5. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection

against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;
iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;
iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
v. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

7. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.

10. In the implementation of the activities under this Project Document, UNDP places reasonable reliance upon the Implementing Partner for it to apply its laws, regulations and processes, and applicable international laws regarding anti money laundering and countering the financing of terrorism, to ensure consistency with the principles of then in force the UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy.

11. The Implementing Partner will ensure that its financial management, anti-corruption, anti-fraud and anti money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.

12. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

13. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

14. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, credible allegation of fraud or corruption or other financial irregularities with due confidentiality.
Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

15. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors, and sub-recipients.

16. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in

contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

17. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

18. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

XI. ANNEXES

Annex I – Project Quality Assurance Report
Annex II – UNDP Risk Log
Annex III – Social and Environmental Screening (SES)
Annex IV – Terms of References
Annex V - Letter of Agreement for Support Services
Annex VI - Draft Agreement between the Government of Georgia and the Executive Committee of the Multilateral Fund

Annex I. Project Quality Assurance Report

Form Status: Approved	
Overall Rating:	Satisfactory
Decision:	Approve: The project is of sufficient quality to continue as planned. Any management actions must be addressed in a timely manner.
Portfolio/Project Number:	00104411
Portfolio/Project Title:	Preparation of a HCFC phase-out management plan (stage I
Portfolio/Project Date:	2021-01-01 / 2024-12-31

Strategic Quality Rating: Highly Satisfactory

1. Does the project specify how it will contribute to higher level change through linkage to the programme's Theory of Change?

○ 3: The project is clearly linked to the programme's theory of change. It has an explicit change pathway that explains how the project will contribute to outcome level change and why the project's strategy will likely lead to this change. This analysis is backed by credible evidence of what works effectively in this context and includes assumptions and risks.

◉ 2: The project is clearly linked to the programme's theory of change. It has a change pathway that explains how the project will contribute to outcome-level change and why the project strategy will likely lead to this change.

○ 1: The project document may describe in generic terms how the project will contribute to development results, without an explicit link to the programme's theory of change.

Evidence: The project is lilnked to UNSDCF, CPD and SDG goals (see section 2/ Strategy), as well as Strategic plan outputs (see RRF, cover page).

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

2. Is the project aligned with the UNDP Strategic Plan?

○ 3: The project responds to at least one of the development settings as specified in the Strategic Plan[1] and adapts at least one Signature Solution[2]. The project's RRF includes all the relevant SP output indicators. (all must be true)

◉ 2: The project responds to at least one of the development settings as specified in the Strategic Plan[4]. The project's RRF includes at least one SP output indicator, if relevant. (both must be true)

○ 1: The project responds to a partner's identified need, but this need falls outside of the UNDP Strategic Plan. Also select this option if none of the relevant SP indicators are included in the RRF.

Evidence: Yes, the project is linked to SP 2022-2025 Output 1.1: The 2030 Agenda, Paris Agreement and other intergovernmentally-agreed frameworks integrated in national and local development plans, measures to accelerate progress put in place, and budgets and progress assessed using data-driven solutions

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No documents available.

3. Is the project linked to the programme outputs? (i.e., UNDAF Results Group Workplan/CPD, RPD or Strategic Plan IRRF for global projects/strategic interventions not part of a programme)

◉ Yes

○ No

Evidence: Yes, the project is linked to UNSDCF Outcome 5/CPD Output 2.1.

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No documents available.

Relevant Quality Rating: Satisfactory

4. Do the project target groups leave furthest behind?

○ 3: The target groups are clearly specified, prioritising discriminated, and marginalized groups left furthest behind, identified through a rigorous process based on evidence.

◉ 2: The target groups are clearly specified, prioritizing groups left furthest behind.

○ 1: The target groups are not clearly specified.

Evidence: The provides detailed analysis of Georgia's legal-regulatory, policy, capacity and awareness barriers, as well as development challenges towards reduction of HCFC consumption to target levels (section 2: Situation Analysis). The section also analyses target groups, whose capacity building (trainings) will play one of the important roles in ODS/HCFC management. .

List of Uploaded Documents

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No documents available.

5. Have knowledge, good practices, and past lessons learned of UNDP and others informed the project design?

○ 3: Knowledge and lessons learned backed by credible evidence from sources such as evaluation, corporate policies/strategies, and/or monitoring have been explicitly used, with appropriate referencing, to justify the approach used by the project.

◉ 2: The project design mentions knowledge and lessons learned backed by evidence/sources but have not been used to justify the approach selected.

○ 1: There is little, or no mention of knowledge and lessons learned informing the project design. Any references made are anecdotal and not backed by evidence.

Evidence: Section 1.3 (Lessons Learned) describes in details lessons learned from the previous phase, as well as touches experience of other countries. Situation analysis provides evidence based analysis of the context.

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No documents available.

6. Does UNDP have a clear advantage to engage in the role envisioned by the project vis-à-vis national / regional / global partners and other actors?

○ 3: An analysis has been conducted on the role of other partners in the area where the project intends to work, and credible evidence supports the proposed engagement of UNDP and partners through the project, including identification of potential funding partners. It is clear how results achieved by partners will complement the project's intended results and a communication strategy is in place to communicate results and raise visibility vis-à-vis key partners. Options for south-south and triangular cooperation have been considered, as appropriate. (all must be true)

◉ 2: Some analysis has been conducted on the role of other partners in the area where the project intends to work, and relatively limited evidence supports the proposed engagement of and division of labour between UNDP and partners through the project, with unclear funding and communications strategies or plans.

○ 1: No clear analysis has been conducted on the role of other partners in the area that the project intends to work. There is risk that the project overlaps and/or does not coordinate with partners' interventions in this area. Options for south-south and triangular cooperation have not been considered, despite its potential relevance.

Evidence: UNDP has been long-standing partner of the Ministry of Environment Protection and Agriculture in implementing Montreal Protocol projects, including in the area of removal of ozone depleting substances. Section 3.3 (Partnerships and stakeholder engagement) discusses the roles of partners, including that of UNDP.

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No documents available.

Principled Quality Rating: Satisfactory

7. Does the project apply a human rights-based approach?

○ 3: The project is guided by human rights and incorporates the principles of accountability, meaningful participation, and non-discrimination in the project's strategy. The project upholds the relevant international and national laws and standards. Any potential adverse impacts on enjoyment of human rights were rigorously identified and assessed as relevant, with appropriate mitigation and management measures incorporated into project design and budget. (all must be true)

◉ 2: The project is guided by human rights by prioritizing accountability, meaningful participation and non-discrimination. Potential adverse impacts on enjoyment of human rights were identified and assessed as relevant, and appropriate mitigation and management measures incorporated into the project design and budget. (both must be true)

○ 1: No evidence that the project is guided by human rights. Limited or no evidence that potential adverse impacts on enjoyment of human rights were considered.

Evidence: As the SESP provides, "the project is designed based on human rights-based approach, aiming at enhancing the knowledge and capacities of the "duty-bearers" to meet their obligations and of the "rights-holders" to claim their rights in line with key provisions of UN Universal Declaration of Human Rights (e.g. article 23 (2), 19 and 23)".

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

8. Does the project use gender analysis in the project design?

○ 3: A participatory gender analysis has been conducted and results from this gender analysis inform the development challenge, strategy and expected results sections of the project document. Outputs and indicators of the results framework include explicit references to gender equality, and specific indicators measure and monitor results to ensure women are fully benefitting from the project. (all must be true)

◉ 2: A basic gender analysis has been carried out and results from this analysis are scattered (i.e., fragmented and not consistent) across the development challenge and strategy sections of the project document. The results framework may include some gender sensitive outputs and/or activities but gender inequalities are not consistently integrated across each output. (all must be true)

○ 1: The project design may or may not mention information and/or data on the differential impact of the project's development situation on gender relations, women and men, but the gender inequalities have not been clearly identified and reflected in the project document.

Evidence: Gender analysis is provided in the section 3.8 (Sustainability, Scaling Up Potential, Gender Mainstreaming). RRF indicators are gender dis-aggregated, wherever applicable.

List of Uploaded Documents

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No documents available.

9. Did the project support the resilience and sustainability of societies and/or ecosystems?

○ 3: Credible evidence that the project addresses sustainability and resilience dimensions of development challenges, which are integrated in the project strategy and design. The project reflects the interconnections between the social, economic and environmental dimensions of sustainable development. Relevant shocks, hazards and adverse social and environmental impacts have been identified and rigorously assessed with appropriate management and mitigation measures incorporated into project design and budget. (all must be true)

◉ 2: The project design integrates sustainability and resilience dimensions of development challenges. Relevant shocks, hazards and adverse social and environmental impacts have been identified and assessed, and relevant management and mitigation measures incorporated into project design and budget. (both must be true)

○ 1: Sustainability and resilience dimensions and impacts were not adequately considered.

Evidence: Relevant shocks, hazards and adverse social and environmental impacts have been assessed in SESP.

List of Uploaded Documents

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No documents available.

10. Has the Social and Environmental Screening Procedure (SESP) been conducted to identify potential social and environmental impacts and risks? The SESP is not required for projects in which UNDP is Administrative Agent only and/or projects comprised solely of reports, coordination of events, trainings, workshops, meetings, conferences and/or communication materials and information dissemination. [if yes, upload the completed checklist. If SESP is not required, provide the reason for the exemption in the evidence section.]

◉ Yes

○ No

○ SESP not required because project consists solely of (Select all exemption criteria that apply)

☐ 1: Preparation and dissemination of reports, documents and communication materials

☐ 2: Organization of an event, workshop, training

☐ 3: Strengthening capacities of partners to participate in international negotiations and conferences

☐ 4: Partnership coordination (including UN coordination) and management of networks

☐ 5: Global/regional projects with no country-level activities(e.g.activities such as knowledge management, inter-governmental processes)

☐ 6: UNDP serves as Administrative Agent

☐ 7: Development Effectiveness projects and Institutional Effectiveness projects

Evidence: The SESP is attached.

List of Uploaded Documents

#	File Name	Risk Category	Risk Requirements	Document Status	Modified By	Modified On
1	SESPHPMPphase2_13157_110	Moderate	Community Health, Safety and Security; Pollution Prevention and Resource Efficiency	Final	khatuna.chanukvadze@undp.org	6/13/2022 11:05:00 PM

Management & Monitoring Quality Rating: Satisfactory

11. Does the project have a strong results framework?

○ 3: The project's selection of outputs and activities are at an appropriate level. Outputs are accompanied by SMART, results-oriented indicators that measure the key expected development changes, each with credible data sources and populated baselines and targets, including gender sensitive, target group focused, sex-disaggregated indicators where appropriate. (all must be true)

◉ 2: The project's selection of outputs and activities are at an appropriate level. Outputs are accompanied by SMART, results-oriented indicators, but baselines, targets and data sources may not yet be fully specified. Some use of target group focused, sex-disaggregated indicators, as appropriate. (all must be true)

○ 1: The project's selection of outputs and activities are not at an appropriate level; outputs are not accompanied by SMART, results-oriented indicators that measure the expected change and have not been populated with baselines and targets; data sources are not specified, and/or no gender sensitive, sex-disaggregation of indicators. (if any is true)

Evidence: The project has detailed RRF with SMART, gender-disaggregated indicator.

List of Uploaded Documents

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No documents available.

12. Is the project's governance mechanism clearly defined in the project document, including composition of the project board?

○ 3: The project's governance mechanism is fully defined. Individuals have been specified for each position in the governance mechanism (especially all members of the project board.) Project Board members have agreed on their roles and responsibilities as specified in the terms of reference. The ToR of the project board has been attached to the project document. (all must be true)

◉ 2: The project's governance mechanism is defined; specific institutions are noted as holding key governance roles, but individuals may not have been specified yet. The project document lists the most important responsibilities of the project board, project director/manager and quality assurance roles. (all must be true)

○ 1: The project's governance mechanism is loosely defined in the project document, only mentioning key roles that will need to be filled at a later date. No information on the responsibilities of key positions in the governance mechanism is provided.

Evidence: The project's governance mechanism is well described in the section VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS. Additionally, the project contains Project Board TOR (Annex 4.1), which further describes governance mechanism and describes in details roles and function of Board members.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

13. Have the project risks been identified with clear plans stated to manage and mitigate each risk?

○ 3: Project risks related to the achievement of results are fully described in the project risk log, based on comprehensive analysis drawing on the programme's theory of change, Social and Environmental Standards and screening, situation analysis, capacity assessments and other analysis such as funding potential and reputational risk. Risks have been identified through a consultative process with key internal and external stakeholders, including consultation with the UNDP Security Office as required. Clear and complete plan in place to manage and mitigate each risk, including security risks, reflected in project budgeting and monitoring plans. (both must be true)

◉ 2: Project risks related to the achievement of results are identified in the initial project risk log based on a minimum level of analysis and consultation, with mitigation measures identified for each risk.

○ 1: Some risks may be identified in the initial project risk log, but no evidence of consultation or analysis and no clear risk mitigation measures identified. This option is also selected if risks are not clearly identified, no initial risk log is included with the project document and/or no security risk management process has taken place for the project.

Evidence: The project has detailed risk log (annex 2).

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

Efficient Quality Rating: Satisfactory

14. Have specific measures for ensuring cost-efficient use of resources been explicitly mentioned as part of the project design? This can include, for example:
i) Using the theory of change analysis to explore different options of achieving the maximum results with the resources available.
ii) Using a portfolio management approach to improve cost effectiveness through synergies with other interventions.
iii) Through joint operations (e.g., monitoring or procurement) with other partners.
iv) Sharing resources or coordinating delivery with other projects.
v) Using innovative approaches and technologies to reduce the cost of service delivery or other types of interventions.

◉ Yes

○ No

Evidence: Cost Efficiency and Effectiveness are discussed under section IV. PROJECT MANAGEMENT.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

15. Is the budget justified and supported with valid estimates?

○ 3: The project's budget is at the activity level with funding sources, and is specified for the duration of the project period in a multi-year budget. Realistic resource mobilisation plans are in place to fill unfunded components. Costs are supported with valid estimates using benchmarks from similar projects or activities. Cost implications from inflation and foreign exchange exposure have been estimated and incorporated in the budget. Adequate costs for monitoring, evaluation, communications and security have been incorporated.

◉ 2: The project's budget is at the activity level with funding sources, when possible, and is specified for the duration of the project in a multi-year budget, but no funding plan is in place. Costs are supported with valid estimates based on prevailing rates.

○ 1: The project's budget is not specified at the activity level, and/or may not be captured in a multi-year budget.

Evidence: The project has detailed budget for all 4 tranches envisaged by the project. Atlas AWP, understandably, is provided for Tranche 1 only. The AWPs for next tranches will be developed once the tranches arrive (during 2025 - 2030).

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

16. Is the Country Office / Regional Hub / Global Project fully recovering the costs involved with project implementation?

○ 3: The budget fully covers all project costs that are attributable to the project, including programme management and development effectiveness services related to strategic country programme planning, quality assurance, pipeline development, policy advocacy services, finance, procurement, human resources, administration,

issuance of contracts, security, travel, assets, general services, information and communications based on full costing in accordance with prevailing UNDP policies (i.e., UPL, LPL.)

(●) 2: The budget covers significant project costs that are attributable to the project based on prevailing UNDP policies (i.e., UPL, LPL) as relevant.

( ) 1: The budget does not adequately cover project costs that are attributable to the project, and UNDP is cross-subsidizing the project.

Evidence: The project will recover costs as vertical fund (Montreal Protocol) rules allow.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

Effective — Quality Rating: Highly Satisfactory

17. Have targeted groups been engaged in the design of the project?

( ) 3: Credible evidence that all targeted groups, prioritising discriminated and marginalized populations that will be involved in or affected by the project, have been actively engaged in the design of the project. The project has an explicit strategy to identify, engage and ensure the meaningful participation of target groups as stakeholders throughout the project, including through monitoring and decision-making (e.g., representation on the project board, inclusion in samples for evaluations, etc.)

(●) 2: Some evidence that key targeted groups have been consulted in the design of the project.

( ) 1: No evidence of engagement with targeted groups during project design.

( ) Not Applicable

Evidence: The project has deen devised in cooperation with the Ozone Unit of MEPA.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

18. Does the project plan for adaptation and course correction if regular monitoring activities, evaluation, and lesson learned demonstrate there are better approaches to achieve the intended results and/or circumstances change during implementation?

(●) Yes

( ) No

Evidence: The project Board will serve this purpose.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

19. The gender marker for all project outputs are scored at GEN2 or GEN3, indicating that gender has been fully mainstreamed into all project outputs at a minimum.

(●) Yes

( ) No

Evidence: The project is GEN2.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

Sustainability & National Ownership — Quality Rating: Satisfactory

20. Have national / regional / global partners led, or proactively engaged in, the design of the project?

( ) 3: National partners (or regional/global partners for regional and global projects) have full ownership of the project and led the process of the development of the project jointly with UNDP.

(●) 2: The project has been developed by UNDP in close consultation with national / regional / global partners.

( ) 1: The project has been developed by UNDP with limited or no engagement with national partners.

Evidence: The project has been developed will close cooperation with the Ozone Unit of the Ministry of Environment Protection and Agriculture (MEPA). The project is nationally owned and implemented by MEPA.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

21. Are key institutions and systems identified, and is there a strategy for strengthening specific / comprehensive capacities based on capacity assessments conducted?

( ) 3: The project has a strategy for strengthening specific capacities of national institutions and/or actors based on a completed capacity assessment. This strategy includes an approach to regularly monitor national capacities using clear indicators and rigorous methods of data collection, and adjust the strategy to strengthen national capacities accordingly.

(●) 2: A capacity assessment has been completed. There are plans to develop a strategy to strengthen specific capacities of national institutions and/or actors based on

the results of the capacity assessment.

- ○ 1: Capacity assessments have not been carried out.
- ○ Not Applicable

Evidence: The project envisages capacity building (trainings) of target groups, which will play important role in ODS/HCFC management. HACT assessments for all responsible parties will be conducted in due course.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

22. Is there is a clear strategy embedded in the project specifying how the project will use national systems (i.e., procurement, monitoring, evaluations, etc.,) to the extent possible?

- ○ Yes
- ○ No
- ◉ Not Applicable

Evidence: N/A, the project is NIM with CO support and therefore UNDP will use its own system of procurement, HR, M&E, etc.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

23. Is there a clear transition arrangement / phase-out plan developed with key stakeholders in order to sustain or scale up results (including resource mobilisation and communications strategy)?

- ◉ Yes
- ○ No

Evidence: Sustainability of the project results are discussed in the section 3.8/ Sustainability, Scaling Up Potential, Gender Mainstreaming.

List of Uploaded Documents

#	File Name	Modified By	Modified On

No documents available.

QA Summary/LPAC Comments

Annex II. UNDP Risk Log

#	Description	Type	Impact and Probability	Counter-measures/ Mmgt. response	Owner	Submitted/ updated by	Last updated	Status
1	GoG's low willingness and capacity to adopt and enforce RAC service technicians' certification system	Institutional; political.	Probability P=1 Impact I=4	The project will conduct close consultations with NOO, MEPA's legal department and other government entities around draft regulation	Project management UNDP CO Implementing partner - MEPA	UNDP CO	March 2022	On-going
2	GoG's low willingness and capacity to develop proper legal-regulatory and institutional basis for the management of HCFC-based equipment and ODS wastes	Institutional; political.	Probability P=1 Impact I=4	The project will conduct a survey of HCFC-based equipment and create a strong evidence base for informed decision-making; the project will conduct intensive consultations with the GoG on legal recommendations	Project management Implementing partner – MEPA	UNDP CO	March 2022	On-going
3	GoG's low interest in learning green procurement and its willingness and capacity to introduce it in public procurement system;	Institutional; political.	Probability P=1 Impact I=4	The project will have close consultations NOO and other government agencies on green procurement and green cooling initiative	Project management Implementing partner – MEPA	UNDP CO	March 2022	On-going
4.	Low cross-agency cooperation on cross-cutting issues.	Institutional; political.	Probability P=1 Impact I=4	Project board with a leadership of NOO will cooperate with relevant agencies and organizations; 10 round table discussions will be organized on cross-cutting issues.	Project management Implementing partner – MEPA	Project management Implementing partner – MEPA	March 2022	On-going
5.	Business's poor interest and capacity to participate in conversion projects in the form of co-financing or in-kind contribution	Organizational; financial.	Probability P=1 Impact I=4	The project will carry out market research/survey of existing businesses and will make a long and short-list of potential beneficiaries; It will establish close communications with long and short-list industries through vis-a-vis meetings, awareness raising seminars, etc. The project will offer a set of technical assistance activities to pre-	Project management; Businesses	UNDP CO	March 2022	On-going

#	Description	Type	Impact and Probability	Counter-measures/ Mmgt. response	Owner	Submitted/ updated by	Last updated	Status
				selected companies in developing and implementing demo conversion projects				
6.	Demo projects do not result in replication	Institutional/ organizational; capacity.	Probability P=1 Impact I=4	The project will carry out barrier analysis and will carry out awareness raising and advocacy campaigns	Project management Businesses;	UNDP CO	March 2022	On-going
7.	Low rate of diffusion of low GWP alternatives	Capacity; organizational	Probability P=2 Impact I=5	The project will carry out barrier analysis and will carry out awareness raising and advocacy campaigns; The project will provide targeted TA to end-users	Project management Businesses;	UNDP CO	March 2022	On-going
8.	MEPA's low willingness to provide necessary financial and technical backstopping to the project, in terms of allocation of relevant staff's time, space or other means for stakeholder consultations, etc.;	Political; organizational.	Probability P=1 Impact I=4	The project will work under NIM modality and with close cooperation of NPD, who is at the same time the NOO. Moreover, the project will be directed by PB composed of representatives of UNDP and MEPA; Altogether will guarantee strong ownership from the side of the government of Georgia	Project management Implementing partner-MEPA	UNDP CO	March 2022	On-going
9.	Low interest of all targeted stakeholders, including customs, MEPA's various departments, line ministries, RAC technicians, RRR centres, etc. to participate in project activities, including trainings	Organizational	Probability P=1 Impact I=4	The project design training programme based on clients/beneficiaries demands without compromising project objectives, based on responses of from stakeholders; Furthermore intensive consultations will be carried out with a wide strata of stakeholders; During PEB meetings on specific thematic issues relevant stakeholders other than board members will be invited too; finally, awareness	Project management Implementing partner-MEPA	UNDP CO	March 2022	On-going

#	Description	Type	Impact and Probability	Counter-measures/ Mmgt. response	Owner	Submitted/ updated by	Last updated	Status
				raising apart from general public will also target specific stakeholders, including decision-makers.				
10.	Provided CB, TA and awareness raising assistance is insufficient for enhancing knowledge and skills of stakeholders and/or is not sustained over time.	Organizational/ capacity	Probability P=1 Impact I=4	The project will use a combined method TA, awareness raising, retooling, trainings, including ToT.	Project management Implementing partner-MEPA	June 2021	March 2022	June 2021
11.	GoG's low willingness/ unwillingness to maintain existing capacity and institutional memory within the GoG	Political	Probability P=1 Impact I=4	The project will work under NIM modality and with close cooperation of NPD, who is at the same time is NOO. Moreover, the project will be directed by PB composed of representatives of UNDP and MEPA, Altogether, will guarantee strong ownership from the side of the government of Georgia; The project will carry out capacity needs assessment of NOU and provide on-demand technical assistance to NOU/NOO to keep institutional memory, make NOO more sustainable and effective	Project management Implementing partner-MEPA	UNDP CO	March 2022	On-going

Annex III. Social and Environmental Screening (SES)

Project Information

Project Information	
1. Project Title	HCFC Total Phase-out Management Plan (HPMP) - Second (2nd) Stage
2. Project Number	00104411 / Output: 00130228
3. Location (Global/Region/Country)	Georgia

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the Project mainstreams the human-rights based approach
The project is designed based on human rights-based approach, aiming at enhancing the knowledge and capacities of the "duty-bearers" to meet their obligations and of the "rights-holders" to claim their rights in line with key provisions of UN Universal Declaration of Human Rights (e.g. article 23 (2), 19 and 23). The project itself serves to enhance Georgia's capacities to meet its obligations under Montreal Protocol. This will be done through application of internationally accepted technical, environmental, safety, health and social standards, good practices and environmentally friendly products, technologies and processes as well as through application for transparent and participatory approaches for decision-making. More specifically, under project's enabling framework, capacity building and demonstration projects (application of low/zero GWP refrigerants and/or equipment) components, requirements for environmental, health and safety standards and safeguards are embedded in planned activities, including incorporation of environmental safeguards in learning and training materials, trainings of RAC sector providers in environmental and safety aspects, development of green public procurement criteria and respective regulations, upgrade of environmental and safety standards for RAC, design of environmental and social safeguards criteria for demo projects, capacity building of business sector (e.g. retailers participating in incentive programme/demo projects) and service providers (e.g. Refrigerants recovery and recycling centres) in compliance with environmental and social requirements of Georgia's environmental legislation in line with EU relevant directives. Ultimately, all these will contribute to enhanced social and economic rights as well as human security rights of Georgian people (articles 3 and 23) to live in cleaner and safer environment and maintain personal health and security. Furthermore, the project will use highly participatory and inclusive approaches in each of the project activity. For example, traditionally the RAC servicing sector, given the need for physical work and specific technical knowledge and skills, is male-dominated in Georgia. Therefore, the project will highly promote participation of female technicians/service providers/decision-makers in almost every activity, with women participation rate being considered as one of the key success indicators. Moreover, the project will take into consideration the UN's "no one left behind" principle and will pay high attention to economically and socially disadvantaged regions and cities, legging behind capital city and other larger urban areas as well as to uncertified low-skill technicians, by creating appropriate capacities and physical infrastructure in disadvantaged towns/regions for sustainable and qualified RAC services and, appropriate skills and knowledge among low-skill technicians. This ultimately will lead to greater number of jobs and more highly paid job avenues in regions and for technicians, being low-skilled before the given intervention. At the same time, outreach campaigns for both service providers and end-users will create proper supply-demand for better services that will ultimately lead to enhanced right of people to enjoy quality services and improve their living standards. Furthermore, the project will ensure participation of various sector representatives in project activities and project decisions through Project Board (PB) meetings, ad-hock working group meetings, general and/or tailor-made consultations, workshops, trainings, conferences and awareness campaigns through the use both printed and electronic means for dissemination of information across the country that will improve the access to information and know-how by broader public and its right to environmental information.
Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment

Project activities target RAC sector, not explicitly having a gender dimension. However, the project will ensure fair and equal participation of both male and female stakeholders in all project activities, including education and training, stakeholder consultations/workshops, awareness and promo actions, with female participation rate considered as one of the success indicators for the project. In general, the Gender Results and Indicators adopted by the ExCom decision 84/73 was taken as a guiding document to ensure gender mainstreaming in the progarmme activities. Given that the refrigeration and air conditioning sector in Georgia is dominated by men, following mainstreaming tools are considered applicable and feasible:

- gender-responsible capacity building – attention will be paid to the engagement of women experts in developing training/educational materials, serve as trainers and/or participate in trainings. Furthermore, efforts will be made to encourage female students' enrolment in vocational schools' educational programme on refrigeration and air condition.
- gender responsive knowledge management – executing agencies will ensure that women and men have equal access to information. This will be ensured through providing equal access to training and awareness material including through online means. Furthermore, awareness campaigns will equally target both sexes to multiply the effect. For example, when promoting the use of low-GWP and energy efficiency cooling and refrigeration equipment due attention will be paid to gender roles i.e., women's influence on decision making in families regarding the purchase of home appliances - ACs and refrigerators, etc.
- documents developed under the project will be gender sensitive – executing agencies and implementing partners will ensure that produced training and awareness raising materials include gender specific content regarding the impacts of ODS that has been handled through recovery, recycling and reclamation.
- gender responsive human resources management – executing agencies will make efforts to encourage women to apply and keep a track of the number and percentage of male and female consultants/experts/technical assistants recruited through the project. Furthermore, in PB gender balance will be maintained.

Briefly describe in the space below how the Project mainstreams environmental sustainability

The project itself serves to enhance Georgia's capacities to meet its obligations under Montreal Protocol via supporting gradual phase-out of ODS in RAC sector thus, contributing to overall environmental sustainability of the country. Environmental mainstreaming will be done at following levels: 1) providing financial incentives and technical support to retailers in RAC sector to convert their technologies into more environmentally friendly technologies; 2) strengthening knowledge and capacities of RAC technicians to provide quality – safer and more environmentally sound – services to customers; 4) strengthening ODS reuse and recycling and overall environmentally safe-disposal capacities; 5) providing legal-regulatory, policy and institutional support to the decision-makers and strengthening the national systems to monitor, control and regulate the import/export of ozone depleting substances.

Specific environmental sustainability mainstreaming means/tools to be used by the project are as follows: carrying out of number of environmental studies to better manage ODS in RAC sector and regulate ODS, development and adoption of specific environmental regulations to control ODS; incorporation of environmental and safety aspects into training and learning modules, trainings of RAC sector providers in environmental and safety aspects, development of green public procurement criteria and respective regulations, upgrade of environmental and safety standards for RAC, design and application of environmental and social safeguards criteria for demo projects, capacity building of business sector and service providers (e.g. Refrigerants recovery and recycling centres) in compliance with environmental and social requirements of Georgia's environmental legislation in line with EU relevant directives.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.	QUESTION 3: What is the level of significance of the potential social and environmental risks? Note: Respond to Questions 4 and 5 below before proceeding to Question 6	QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?

Risk Description	Impact and Likelihood (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
Risk 1: Release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts. (Related to Risk 7.2 Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?)	I = 1 L = 2	**Low**	Under incentive/demonstration project component, the project will support 3 facilities (retailers) in RAC sector to convert to zero-ODP and/or low-GWP alternatives. If not properly maintained leaks may happen out of new/retrofitted equipment that may have local impact within the boundaries of equipment/facility. Also, during conversion process itself releases of ODS may happen which will require proper handling – recovery and recycling/disposal of ODP. Apart from above, the project has activities targeting capacity development for ODS recovery, recycling and re-use. It there are not effectively operating recycling centres across the country and service technicians with adequate skills, releases of pollutants from O/M and servicing of RAC equipment will happen.	Best available techniques/environmental practices will be followed. Target facilities will be trained in proper O/M and environmental and safety safeguards and also, will be linked with certified RAC service technicians/companies for receiving proper RAC services upon demand. At the system and institutional level, the project develop ODS control and proper handling capacities including those to minimize/reduction ODS releases into environment through capacity building of recycling centres, RAC service technicians and law enforcement officers.
Risk 2: Risks to community health and safety due to the use of hazardous (e.g. toxic and flammable) chemicals (Related to Risk 3.2: Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?)	I = 3 L = 2	**Moderate**	Under incentive/demonstration project component, the project will support 3 retailers in RAC sector to convert to zero-ODP and/or low-GWP alternatives. This may include but not limited to using natural refrigerants (e.g. ammonia, CO2, HCs (propane, propane, iso-butane, propylene, etc.) and HFOs. HCs have highly flammable nature which require appropriate safety measures to be in place, including leak detection and control system, fire alarm system, ventilation systems, safety protocols and contingency plans, and special protection equipment including PPE and fire extinguishers. Also, it is recommended to locate HC-based equipment in sparsely/unpopulated areas. In general, HC-based equipment requires proper O/M and qualified staff to follow required technical, health, safety and environmental standards. In order to avoid explosions and fires, ignition sources should be eliminated in both the RAC equipment and, in certain cases, the surrounding area. This includes avoidance of surfaces with temperatures in the range of the auto ignition temperature and use of devices which could produce sparks with a charge above the minimum ignition energy. Service and maintenance technicians are required to handle their tools with care as these may be potential additional ignition sources, aside from electrical devices	Demonstration project design will include technical, environmental, health and safety requirements for both equipment design and ODS alternative substances as well as for equipment O/M and safety control taking into consideration. Best available techniques/environmental practices and internationally accepted and locally required technical standards. The Facilities operators/technicians and managers will be trained in O/M and HSE related to operations of the equipment and handling ODS. Furthermore, technical assistance will be provided to target facilities to develop HSE protocols and contingency plans as well as to meet all requirements set out in Georgia's environmental legislation. Moreover, target facilities will be linked with certified technicians who will have knowledge, capacities and equipment for servicing the equipment. The project envisages to upgrade existing RAC service certification system and create a pool of

Risk Description	Impact and Likelihood (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
			that are part of the equipment itself. The risk of a fire is 10 to 1,000 times higher during servicing than during normal operation, e.g. by unintentional damage to components, leaking refrigerant cylinders, servicing equipment as ignition sources. During normal operation, safety can be part of the system's design. It is necessary to ensure sufficient ventilation in case of application of flammable chemicals so that the refrigerant is dispersed rapidly in the event of a leakage. The pre-set value or limit for any oxygen deprivation detector must be 18 % of oxygen concentration. In case of ammonia application, high toxicity is a key issue and facilities using significant quantities of ammonia should not be located in occupied area; As per the past and existing experience, negative impacts of ammonia leaks are of local nature and do not usually extend to broader communities, but directly impact personnel working with RAC equipment and/or servicing it. Personal health and safety issues are discussed in more detail under risk 6 below. For CO2 the major issue is high the working pressure. If it is too high the equipment may not to endure the accelerated pressure and may burst/fracture, causing explosion and related fires. Thus, CO2 requires specific safety requirements in connection with high working pressure levels. CO2's critical temperature is at 31 °C while its critical pressure or the critical point is ~74 bar (i.e. 31.0 °C/73.8 bar). The critical point is the condition above which distinctive liquid or gas phases do not exist. Beyond the critical point CO2 is in trans-critical state. In comparison to other refrigerants CO2's critical point is low; in addition, the triple point at which solid, liquid and gas phase co-exist is high (5.2 bar/-56.6 °C). These higher operating pressures require specific technical equipment, from pipe thickness to appropriate tools etc. Operating and standstill pressures are significantly higher than for all other refrigerants. A common issue for CO2 systems in supermarkets is the high pressure at standstill. If the plant is stopped for maintenance the refrigerant inside the system begins to heat up. The pressure inside the system consequently increases. Components of CO2 employed in a (subcritical) cascade system may not stand the high pressure as they are usually designed for operating pressures of approx. 35 bar. The	certified technicians to serve equipment, based on newly introduced cutting-edge low/zero ODP and GWP technologies.

Risk Description	Impact and Likelihood (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
			most common and also easiest counter-measure is to purge some of the CO2 in the system, so pressure and temperature in the plant are reduced. At certain conditions, for instance during venting or charging, solid CO2 (dry ice) can be formed when pressure/temperature drops below the triple point. This is also relevant for the selection and positioning of pressure-relief valves, through which liquid CO2 must not pass, as the forming of dry ice might block the valve (with subliming dry ice, pressure rises rapidly). CO2 has a very high coefficient of expansion. Trapped liquid CO2 expands rapidly which can result in a very high pressure increase. As a rule of thumb for every 1 °C rise in the temperature of the trapped liquid CO2, the pressure rises by 10 bar. It must be avoided that liquid CO2 is trapped between closed valves before venting the system. This can be done by moving the liquid CO2 to another part of the system by means of high pressure gas. Thus, similar to other refrigerants, CO2 systems need proper design of equipment components, , proper O/M of the system, safety measures during O/M and standstill, pressure control and alarm systems, fire alarm system, contingency plans, fire extinguishers and PPE for accidents and ventilation system. For CO2 the ATEL/ODL (Acute Toxicity Exposure Limit/Oxygen Deprivation Limit) is0.036 kg/m³, so the alarm should be set at 0.018 m³ (approximately 20,000 ppm). Ideally there should also be a pre-alarm at 5,000 ppm because, due to the high pressure in CO2 systems, the concentration will rise rapidly in the event of a leakage[10]. Toxicity/physical impairments related to CO2 leakages/releases are discussed in detail under the risk 6 below.	
Risk 3: Generation of hazardous wastes (HCFCs) (Related to risk 7.2: Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?)	I = 2 L = 3	**Moderate**	Under incentive/demonstration project component, the project will support introduction of zero-ODP and low-GWP alternatives in RAC sector via retrofitting/replacing equipment. Replaced ODS containing equipment and/or recovered HCFC are considered hazardous waste and should be handled in environmentally safe way in line with existing ODS and waste management legislation of	Best available techniques/environmental practices will be followed. Target facilities (retailers) will be supported in meeting all required environmental and safety requirements, including those for hazardous waste and ODS waste

[10] Source: Recommendations to safety guidelines and standards for the use of natural refrigerants. German Environmental Agency. Advisory Assistance Programme (AAP).2016. https://www.umweltbundesamt.de/sites/default/files/medien/1968/publikationen/2017-01-16_leitfaden_recommendations_on_the_use_of_natural_refrigerants_en-1.pdf

Risk Description	Impact and Likelihood (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
			Georgia (e.g. waste management code, specific regulation on waste electronic and electrical equipment, regulations on hazardous waste handling/treatment, ODS regulations, etc.). Apart from demo projects, the project has activities targeting capacity development for ODS recovery, recycling and re-use. It there are not effectively operating recycling centres across the country and service technicians with adequate skills, releases of pollutants from O/M and servicing of RAC equipment will happen. [11].	management (e.g. designation of environmental manager, development of waste management plan and agreement with MEPA on planned measures, reporting, etc.)/ Recovery and recycling of HCFC should be carried out in line with regulatory requirements by certified technicians/recycling centres. At the system and institutional level, the project develops ODS control and proper handling capacities including those to minimize/reduction ODS releases into environment through capacity building of recycling centres, RAC service technicians and law enforcement officers.
Risk 4: Potential risks and vulnerabilities related to occupational health and safety due to physical and chemical hazards during implementation and/or after-care of environmentally-friendly RAC equipment (Related to risk 3.7: Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?)	I = 4 L = 2	**Moderate**	*1. Under incentive/demonstration project component*, some refrigerants to be used in particular, ammonia, are toxic and become acidic when mixed with water. In general, proper operations, maintenance and safety protocols and safety control system should be established and implemented in case of using flammable substances and in particular, for ammonia. Accidents with ammonia were recorded in the past, with almost nobody damaged outside a close proximity to the system. Persons harmed are usually at the point of the leakage and working on the system. Injuries can be prevented by wearing PPE. Thus, particular care must be taken during servicing of the systems to avoid a release of the refrigerant into areas where people are working. The latter does not require leak detectors, since it is easily detectable by smell. When leaked, it rises upwards, displacing oxygen in that direction. The most serious damage NH3 can inflict is to cause blindness. This substance irritates the skin, through chemical burns and potential freeze burns when in contact with liquids. In refrigeration plants charged with more than 500 kg of NH3, the occurrence of the refrigerant in all connected water or fluid circuits	Demonstration project design will include technical, environmental, health and safety requirements for both equipment design and ODS alternative substances as well as for equipment O/M and safety control taking into consideration Best available techniques/environmental practices and internationally accepted and locally required technical standards. The Facilities operators/technicians and managers will be trained in O/M and HSE related to operations of the equipment and handling ODS. Furthermore, technical assistance will be provided to target facilities to develop HSE protocols and contingency plans as well as to meet all requirements set out in Georgia's environmental legislation. Moreover, target facilities will be linked with certified technicians who will have

[11] Source: Recommendations to safety guidelines and standards for the use of natural refrigerants. German Environmental Agency. Advisory Assistance Programme (AAP).2016. https://www.umweltbundesamt.de/sites/default/files/medien/1968/publikationen/2017-01-16_leitfaden_recommendations_on_the_use_of_natural_refrigerants_en-1.pdf

Risk Description	Impact and Likelihood (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
			(referring to indirect systems) must be tracked by detectors and an alarm systems run in the machinery room in case of emergency. Since NH3 is lighter than air the ventilation system should be placed in a higher position. NH3 must be kept from entering the sewage system. Measuring the pH is the most common method for detection as the pH value increases with the presence of NH3. Measuring the chemical composition of the water is even more accurate[12]. Concerning CO2, it exhibits no toxicity and naturally occurs in the atmosphere at concentrations around 350 ppm. It is usually unnoticeable in concentrations between 300 and 600 ppm. Regardless, high concentrations can cause physical impairments, such as suffocation as it is an asphyxiant, displacing oxygen. Therefore, enclosed facilities (e.g. machinery rooms, cold rooms, etc.) where CO2 may leak must be equipped with alarm sensors to detect concentration level exceeding its PL (0.1 kg/m³; > 5,000 ppm). Due to the fact that CO2 is 1.5 times heavier than air it tends to pool and the distribution of CO2 concentration in the ambient air is usually heterogenous. Because of this the exposure to CO2 when standing up right might be lower than at ground level. Gas detection and ventilators should therefore be placed near the floor, approx. 30 cm above it. The sensor must be installed at a level close to the floor, which means that it will measure higher concentration than at a level where it might be breathed in by e.g. a service technician. This will provide earlier warning in case of a leakage and more time to escape. The enclosed area around a CO2 system should always be well-ventilated. Ear protectors should be worn when venting the facility as higher noise levels will occur during the process[13]. In general, all refrigerants can deplete oxygen if trapped and thus act as an asphyxiant. Therefore, All international technical standards set requirements for mechanical ventilation for all refrigerant	knowledge, capacities and equipment for servicing the equipment. The project envisages to upgrade existing RAC service certification system and create a pool of certified technicians to serve equipment, based on newly introduced cutting-edge low/zero ODP and GWP technologies. It is essential that awareness raising and proper training is provided to the workers in the facilities that are being supported so that no risk is generated for the workers during the transition as well as during routine operations and maintenance of the equipment after project closure. At the system and institutional level: • minimum technical, safety and environmental safety requirements and standards will be set for training and service equipment design and application and target groups will be trained in line with these standards; • Environmental and safety considerations will be incorporated in RAC technicians certification system, professional training programms and VET schools' curriculum;

[12] Source: Recommendations to safety guidelines and standards for the use of natural refrigerants. German Environmental Agency. Advisory Assistance Programme (AAP).2016. https://www.umweltbundesamt.de/sites/default/files/medien/1968/publikationen/2017-01-16_leitfaden_recommendations_on_the_use_of_natural_refrigerants_en-1.pdf

[13] Source: Recommendations to safety guidelines and standards for the use of natural refrigerants. German Environmental Agency. Advisory Assistance Programme (AAP).2016. https://www.umweltbundesamt.de/sites/default/files/medien/1968/publikationen/2017-01-16_leitfaden_recommendations_on_the_use_of_natural_refrigerants_en-1.pdf

Risk Description	Impact and Likelihood (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
			systems. Mechanical ventilation is mandatory within a machinery room where larger quantities of refrigerant occur. Every machinery room with installations of more than minimum quantity of refrigerant charge set out in specific standards must be equipped with a refrigerant detection system. For refrigerants with a recognisable smell below PL ("Practical Level" at or below which no escape is required), no detectors are necessary, as a leakage is easily noticed. If the concentration of refrigerant within a machinery room exceeds the permitted limit, an alarm has to be triggered and the mechanical emergency ventilation must set in. As for flammability and high operational pressures of certain refrigerants to be used, these issues are discussed in detail under the risk 4 above. *2. Under project's capacity building, technical assistance and enabling framework components and activities,* it is envisaged to strengthen capacities of vocational schools, RAC service centres, law enforcement officers in RAC servicing, ODS handling, VET education and ODS control through development of learning products and technical standards, upgrading of infrastructure and trainings. Minor environmental, health and safety issues for beneficiaries may emerge during trainings and/or learning events in application of RAC service equipment, VET laboratory equipment and ODS detectors if minimum safety and environmental standards are not met and environmental sound and safe equipment is not applied.	• Technical standards for refrigeration equipment and heat pumps will be updated to include environmental and safety standards in line with best international practices.
Risk 5: Manufacture, trade, release, and/or use of hazardous chemicals and/or materials. (Related to Risk 7.3: ill the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol.)	I = 2 L = 4	**Moderate**	The project will support ODS trade and use controls through HCFCs quota allocation to the registered refrigerant importers and capacity building activities for RAC technicians/service centres and enforcement officers; application of ozone/environmental friendly technologies and good practices, upgrading existing ODS control and leak management infrastructure, etc.	Application of Best available techniques environmental practices; Close coordination with and involvement of enforcement officers; Capacity building in trade control, leak management, ODS recovery and recycling.
	QUESTION 4: What is the overall Project risk categorization?			
	Check all that apply			Comments

Risk Description	Impact and Likelihood (1-5)	Significance (Low, Moderate, High)	Comments		Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
			Low Risk	☐	
			Moderate Risk	**x**	The project will assure that environmental, health and safety standards and safeguards are followed during procurement and implementation of demo projects as well as during procurement and application of training equipment for RAC service centres, Customs, VET schools, etc.
			High Risk	☐	
	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?				
	Check all that apply			Comments	
	Principle 1: Human Rights			☐	
	Principle 2: Gender Equality and Women's Empowerment			☐	
	1. Biodiversity Conservation and Natural Resource Management			☐	
	2. Climate Change Mitigation and Adaptation			☐	
	3. Community Health, Safety and Working Conditions			X	Will be addressed through best available technologies, green procurement, practice, trainings and setting up proper HSE systems
	4. Cultural Heritage			☐	
	5. Displacement and Resettlement			☐	
	6. Indigenous Peoples			☐	
	7. Pollution Prevention and Resource Efficiency			X	Will be addressed through demonstration/promotion of Best Available Techniques and Environmental Practices, incorporation of environmental and safety requirements in relevant project components, Close coordination with and involvement of enforcement officers; capacity building in trade control, leak management, ODS recovery and recycling,

Final Sign Off

Table II.4: Final Sign Off

Signature	Date	Description
QA Assessor	30 May 2022	Ms. Nino Antadze, UNDP CO, as **QA Assessor**
QA Approver	6 June 2022	Anna Chernyshova, Deputy Resident Representative, as **QA Approver**
PAC Chair	8 June 2022	Nick Beresford, Resident Representative, acting as **PAC Chair**

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
Principles 1: Human Rights		
1.	Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	NO
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? [14]	NO
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	NO
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	NO
5.	Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	NO
6.	Is there a risk that rights-holders do not have the capacity to claim their rights?	NO
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	NO
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	NO
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	NO
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	NO
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	NO
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.	NO
Principle 3: Environmental Sustainability - screening questions regarding environmental risks are encompassed by the specific standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes.	NO
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	NO
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	NO
1.4	Would Project activities pose risks to endangered species?	NO
1.5	Would the Project pose a risk of introducing invasive alien species?	NO
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	NO
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	NO
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction.	NO
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	NO
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	NO
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned,	NO

[14] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
	then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.	
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant[15] greenhouse gas emissions or may exacerbate climate change?	NO
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	NO
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding	NO
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	NO
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	YES
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	NO
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	NO
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, and erosion, flooding or extreme climatic conditions?	NO
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	NO
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	YES
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	NO
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	NO
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	NO
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	NO
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	NO
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	NO
5.3	Is there a risk that the Project would lead to forced evictions?[16]	NO
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	NO
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	NO
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	NO
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.	NO

[15] In regards to CO_2, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.

[16] Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	NO
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	NO
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	NO
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	NO
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	NO
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	NO
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	NO
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	YES
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol.	YES
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	NO
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	NO

Annex IV. Terms of References

4.1/ Terms of Reference for Project Board

UNDP Standard Terms of Reference (ToR) for the Project Board
"HCFC Total Phase-out Management Plan (HPMP) - Second (2nd) Stage
Project: 00104411 / Output: 00130228

I. **Background**

All UNDP projects are governed by a multi-stakeholder board or committee established to review performance based on established monitoring and evaluation metrics and high-level implementation issues to ensure quality delivery of results. For the purpose of this ToR and to ensure standardization, henceforth, as regards project documentation, such a body shall only be referred to by the name: 'Project Board'. The Project Board is the most senior, dedicated oversight body for a UNDP 'Development Project', which is an instrument where UNDP "Delivers outputs where UNDP has accountability for design, oversight and quality assurance of the entire project."

II. **Duties and Responsibilities**

The two prominent (mandatory) roles of the Project Board are as follows:

1) High-level oversight of the project. This is the primary function of the Project Board. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, monitoring missions' reports, evaluations, risk logs, quality assessments, and the combined delivery report. The Project Board is the main body responsible for taking corrective actions as needed to ensure the project achieves the desired results. And its function includes oversight of annual (and as-needed) assessments of any major risks to the project, and related decisions/agreements on any management actions or remedial measures to address them effectively.

The Project Board also carries the role of quality assurance of the project taking decisions informed by, among other inputs, the project quality assessment. In this role the Board is supported by the quality assurer, whose function is to assess the quality of the project against the corporate standard criteria. This function is performed by a UNDP programme or monitoring and evaluation officer to maintain independence from the project manager regardless of the project 's implementation modality.

The Project Board reviews updates to the project risk log.

2) Approval of key project execution decisions. The Project Board has an equally important, secondary role in approving certain adjustments above provided tolerance levels, including substantive programmatic revisions (major/minor amendments), budget revisions, requests for suspension or extension and other major changes (subject to additional funding partner/donor requirements).

The Project Board is responsible for making management decisions by consensus when required, including the approval of project plans and revisions, and the project manager's tolerances. The Project Board approves annual work plans and reviews updates to the project risk log.

Within the overall governance and management arrangements of the project, the role of the Project Board as regards these two key functions ('High-level oversight of the project' and 'Approval of key project execution decisions') is distinct from the roles of entities involved in the implementation of the project, namely the implementing partner (IP), responsibilities parties (if applicable), service providers and project staff.

Specific responsibilities of the Project Board include the following:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints, and promote gender equality and social inclusion (LNOB) in the project implementation;
- Review project performance based on monitoring, evaluation and reporting, including standard quality assurance checks, progress reports, risk logs, spot checks/audit reports and the combined delivery report;
- Address any high-level project issues as raised by the project manager and project assurance;
- Provide guidance on emerging and/or pressing project risks and agree on possible mitigation and management actions to address specific risks (including ensuring compliance with UNDP's Social and Environmental Standards, Fraud/corruption, Sexual Exploitation and Abuse and Sexual Harassment);
- Agree or decide on project manager's tolerances as required, within the parameters set by UNDP (Manage Change in the PPM) and the donor, and provide direction and decisions for exceptional situations when the project manager's tolerances are exceeded;
- Advise on major and minor amendments to the project within the parameters set by UNDP and the donor;
- Agree or decide on a project suspension or cancellation, if required; (note that for GEF and GCF projects it is UNDP that decides to suspend or cancel and project and the Project Board is informed/consulted only).
- Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily according to plans.
- Receive and address project level grievance, including overseeing whatever specific compliance and stakeholder response (or grievance) mechanisms have been put in place so that individuals and communities potentially affected by the project have access to effective mechanisms and procedures for raising concerns about the social and environmental performance of the project.
- Engage in the low value grant selection process where there is no Grant Selection Committee, as guided by the Low Value Grants – UNDP Operational Guide.

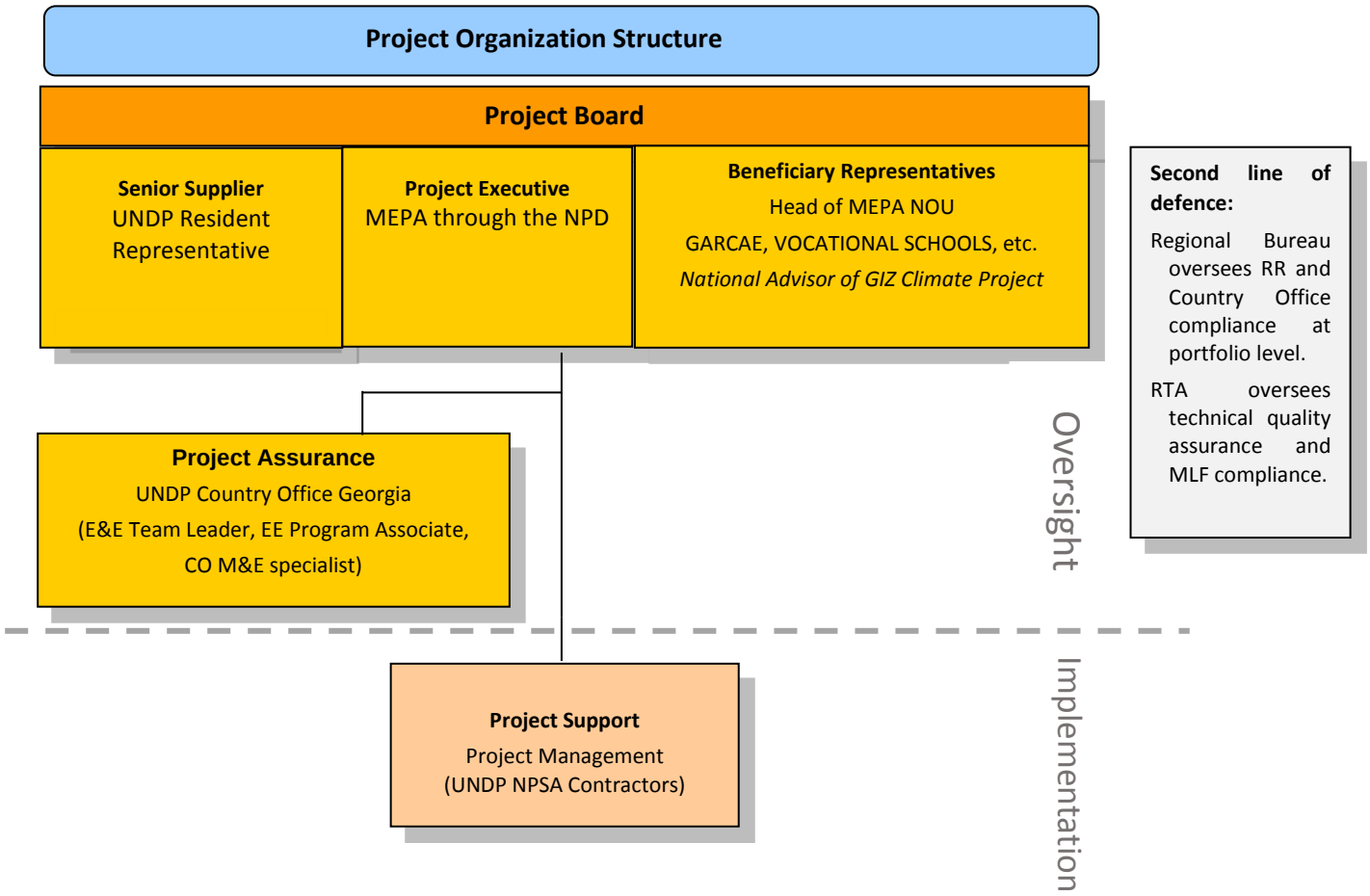
Additional responsibilities of the Project Board can include, but are not limited to, the following:

- Act as an informal consultation mechanism for stakeholders;
- Review the final project report package during an end-of-project review meeting to discuss lessons learned and opportunities for scaling up;
- Set up tolerance levels for project stages in terms of time and financial resources
- Reviews and clears Annual Work Plan (AWP)
- Based on the approved annual work plan (AWP), reviews and approves project plan and authorize any major deviation from these agreed stage plan. The PB will evaluate submitted documents and be in charge of approving plans and budgets.
- Arbitrates any conflicts within the project or negotiates a solution to any problems between the project and external bodies;
- Discuss issues/risks to the project implementation and makes decision for any required follow up

III. **Composition of the Project Board**

As noted in the diagram below, Project Board has three categories of formal members (e.g. voting members). The role of every formal Project Board member corresponds to one of these three roles.

Diagram 1 –Project Organization Structure



The three categories of Project Board members are the following:

1) The Executive: represents ownership of the project and chairs (or co-chairs) the Project Board. The executive is ultimately responsible for the project, supported by the Senior User/Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its outputs. The Executive has to ensure that the project has a cost-conscious approach, balancing the demands of the user (or beneficiary) and supplier. The project Executive is Ministry of Environmental Protection and Agriculture (through appointed NPD).

2) Beneficiary Representative(s): Represents the interests of those groups of stakeholders who will ultimately benefit from the project. Beneficiary is responsible for specification of the needs of all those who will be primarily using or benefiting from the project outputs, for user liaison with the project team and for monitoring that the solution will meet those needs. Their primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Beneficiary Representative(s) is: Ministry of Environment Protection and Agriculture/MEPA, Head of Ambient Air Division, Environment and Climate Change Department.

3) Development Partner/Supplier(s): Individuals representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Senior Supplier is accountable for the quality of the outputs delivered by the supplier(s). The Senior Supplier role must have the authority to commit or acquire supplier resources required. The Development Partner/Supplier(s) representative(s) is: UNDP Resident Representative (representing Montreal Protocol through Delegation of Authority) or Deputy Resident Representative.

IV. Standard Project Board Protocols

This Project Board will meet minimum once a year.

Project Board members cannot receive remuneration from project funds for their participation in the Board. However, it is allowable for board members to be reimbursed from project funds for certain reasonable, qualified expenses related to travel or lodging to attend board meetings.

Project Board decisions are made by unanimous consensus. If a consensus cannot be reached within the Board, the final decision shall rest with the UNDP representative on the Project Board or a UNDP staff member with delegated authority as the programme manager.

It is required that as per internationally recognized professional standards and principles of sound governance, conflicts of interest affecting board members in performing their duties must be formally disclosed if not avoidable. Where a board member has a specific personal conflict of interest with a given matter before the board, he/she must recuse oneself from their participation in a decision. No board member can vote or deliberate on a question in which he/she has a direct personal or pecuniary interest not common to other members of the board.

VI. Standard Outputs of Project Board Meetings

In its oversight function, the Project Board will (at a minimum) review and assess the following project-related evidence at each meeting:

- Assessment of project progress to date against project output indicators (as documented in the project document results framework)
- Approval/review of annual work plans
- Assessment of the relevant Monitoring & Evaluation mechanisms, including all evaluations
- Review and assessment of the Project Risk Log (with updating/amendments as needed)
- Assessment of project spending, based on a review of the combined delivery report

This will be in addition to the review and approval of any required project execution decisions.

The output of every Project Board should be a written record (minutes) that captures the agenda and issues discussed and the agreed upon action items and decisions (if applicable). Each report should clearly document the members attending the meeting (as well as all participants in the meeting) and the modality used to agree on a certain action or decision (whether formal voting or no-objection or other mechanism). All records of board meetings should be documented and kept by UNDP in their quality assurance function.

VII. Support Functions to the Project Board

There are two main entities/functions outside the Project Board structure whose role is to report to the Project Board and support board members in effectively fulfilling their roles: project assurance and project management.

Project Assurance: Project assurance is the responsibility of each Project Board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including applying UNDP's social and environmental management system to ensure the SES are applied through the project cycle. The Project Board cannot delegate any of its quality assurance responsibilities to the project manager.

A designated representative of UNDP playing the project assurance role is expected to attend all Project Board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meetings and provide board members with the required documentation required to perform their duties.

The UNDP representative playing the main project assurance function is: Nino Antadze/Team Leader, Energy & Environment Portfolio, UNDP Georgia. This function will also be fulfilled by Programme Associate, Energy & Environment Portfolio, and UNDP Georgia CO M&E Specialist.

Project Support: This function is often covered by the Project Management Unit: The Project Manager (PM) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the Board for review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk logs.

A designated representative of the PMU is expected to attend all board meetings and present the required progress reports and other documentation needed to support board processes as a non-voting representative.

4.2/ Terms of Reference/Job Description for National Project Coordinator/Project Manager

Postion Type: External Vacancy
Job Title: National Project Coordinator/Project Manager to the project: X phase pf Institutional strengthening for implementation of the Montreal Protocol (X phase of IS project)
Category: Environment and Energy
Application Deadline: TBD
Duty station: Project office in Tbilisi
Type of contract: Service Contract (SC) (part-time)
Expected starting date: ASAP
Expected duration of assignment: full-time, 1 year with a view of annual contract extension

BACKGROUND

The Development/long-term objective HPMP ***is initial freeze and progressive reduction of HCFCs consumption in refrigeration sector and solvent sectors while minimizing economic and social impacts.*** The concrete goal of the II Stage of HPMP is to achieve 67.5% HCFC consumption reduction by 2025, 97.5% reduction by 2030 and 100% reduction by 2020 by implementing groups of horizontal and specific measures that will ensure smooth and sustained transition from HCFC consumption.

To attain the project goal. Georgia in Stage II of the HPMP intends to focus on only RAC sector, since the use of HCFCs in solvent sector has been discontinued since 2013. Following areas will be targeted:

- strengthening control over supply, demand and emissions/releases of HCFCs;
- proper management of collection, recovery, recycling and reclamation of HCFCs from RAC systems, including end-of-life RAC equipment
- promoting and facilitating the use of natural refrigerants/low GWP including through fiscal incentives

This will be achieved via:

- tackling shortcomings of policy, regulatory and procedural framework;
- continued build-up of skills & knowledge to ensure adequate capacity of customs officers, environmental inspectors of the Environmental Supervision Department, technicians, vocational schools and RRR network in HCFC monitoring and control, collection, recovery, recycling of HFCs systems including end-of-life RAC equipment;
- implementing conversion/demonstration projects to expose RAC operators and technicians to technologies based on natural/alternative refrigerants with low GWP effects and/or alternative technologies and practices and promote their application in the domestic market;
- supporting good servicing practices in the refrigeration sector
- enhancing monitoring and evaluation of HPMP-II measures, coordination with national agencies/stakeholders and various networks.

In the RAC servicing sector, Stage II of the HPMP will be implemented through groups non-investment and investment measures which are grouped into following 5 components:

- **Component 1**. *Policy, Regulatory and Institutional Support* aims at strengthening legislative and regulatory base for facilitating market transition to a new range of technologies, application of relevant green procurement approaches, introducing policy options for incentivizing the return of used refrigerants, labelling of reclaimed refrigerants and placing them on the market, developing professional qualification standards for technicians.
- **Component 2**. *Training, Capacity building and Awarene*ss aims at building capacity of technicians in in handling zero-GWP refrigerants, supporting vocational schools, strengthening Certification System for technicians, enhancing capacity of law enforcement agencies, informing importers and end-users on new technology options for refrigeration and cooling, facilitating intersectoral cooperation.

- **Component 3**. *Demonstration Projects* aims at promoting the application of low-GWP technologies having significant potential for broad application in Georgia.
- **Component 4**. *Technical Assistance to Support Good Servicing Practices in the Refrigeration Sector* aims at providing support with hardware (equipment) to the Customs Department and Department of Environmental Supervision, the RAC service centres and vocational schools and assisting Georgia in defining the policy for on-site storage of ODS waste.
- **Component 5.** Project Coordination aims at creating an efficient management and coordination mechanism for successful implementation of the project activities.

The programme of measures will cover the period from 2021 through 2031 and will be implemented in 4 tranches. First tranche will commence in 2021, the second – in 2024, the third – in 2027 and the fourth – in 2030.

The project is implemented under National Implementation Modality (NIM) with the Ministry of Environmental Protection and Agriculture playing an implementing partner's part. The project is directed by the Project Board (PB) composed of Executive, Senior Supplier and Senior User is an ultimate decision-making body for the project. The executive represents the project implementing partner, senior user/beneficiary – entity (ies) directly benefiting from the project and defining and monitoring the quality requirement for the project deliverables/products and senior supplier – entity that commits resources for the project. PB has also project assurance role to ensure the adherence of the project to set out rules and procedures and quality requirements.

To ensure effective and efficient implementation of the project, National Project Coordinator/Project Manager is being recruited to manage the project on a daily basis. He/She will work under the technical guidance of Regional Chemicals Advisor and direct supervision of Environment and Energy Team Leader of UNDP CO.

SCOPE OF THE WORK

National Project Coordinator/Project Manager will manage the project on a daily basis. More specifically, he/she will:

- With assistance of project assistant develop annual work plans
- Track financial expenditures
- Prepare budget and project revisions
- Will maintain issues and risk log and track progress against indicators and targets of project Results and Resources Framework and adjust it in accordance with corporate requirements and local needs
- Coordinate recruitment of project staff and supervise their work
- Develop ToRs/SoWs for consultancy assignments, participate in the selection of consultants and supervise their work
- With assistance of project assistant will develop annual procurement plans, SoWs for procurements, participate in selection of vendors and supervise their work
- With assistance of project team provide a secretary work to the PB
- Contribute to the development of inception report, annual progress reports and terminal report
- Provide on-demand advise to the UNDP management and Environment and Energy Team Leader, National Project Director and relevant government counterparts on project related issues
- Liase with national and local counterparts and other strategic partners
- Coordinate outreach, advocacy, visibility activities
- Contribute to the staff and stakeholders learning and knowledge management
- Document lessons from project implementation and make recommendations to the Project Board for more effective implementation and coordination of project activities

DURATION OF THE CONTRACT

The National Coordinator/Project Manager will be hired on a full-time basis during 1-year period. Annual extension of contract is envisaged until the end of the project pending on satisfactory performance by the incumbent and certification of such performance by the Environment and Energy Team Leader,

REQUIRED EXPERTISE AND QUALIFICATION

Education:

- Advanced university degree (***at least M.Sc. or equivalent – minimum qualification criterion***) in the area of Environmental Science, Environmental Policy and Management, Environmental Engineering, Chemistry, Chemical Engineering or, other related fields

Experience:

- ***At least 5 years of (managerial or consultancy) experience (minimum qualification criterion)*** in any of following fields: chemicals management, implementation of global environmental conventions and in particular, Montreal Protocol to Phase-out Ozone Depleting Substance
- ***At least 5 years of experience (minimum qualification criterion)*** in project management
- Demonstrated experience in working with/for International Development Organizations and in particular with/for UNDP
- Knowledge and understanding of the context of ODS phase-out Georgia

Language:

- Excellent written and verbal communication skills in English

Corporate Competencies:

- Demonstrates integrity by modelling the UN's values and ethical standard
- Ability to establish and maintain good working relations with colleagues in multi-cultural environment
- Fulfils all obligations to gender sensitivity and zero tolerance for sexual harassment
- Ability to effectively coordinate a large, multidisciplinary team of experts and consultants

PAYMENT MODALITIES

The National Project Coordinator/Project Manager shall be paid a fixed salary on a monthly basis

APPLICATION PROCEDURES

Qualified and interested candidates are hereby requested to apply. The application should contain the following:

- Personal CV or P11, indicating education background/professional qualifications, all past experience from similar projects, as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references
- Brief description of why the individual considers him/herself as the most suitable for the assignment

Short-list of applicants will be made based on screening (applying simple yes/no principle) of application package and minimum qualification criteria. Only short-listed candidates will be invited to an individual interview.

EVALUATION CRITERIA

The expert will be evaluated against technical criteria. Maximum score is 100%. The technical evaluation will include the following:

- Educational Background as requested: 10%
- Professional experience, as requested: 20%
- Project management experience as requested: 20%
- Demonstrated experience in working with/for International Development Organizations and in particular UNDP, 20%
- Knowledge of Georgia's context in phasing out ODS and institutional setting: 20%
- Strong interpersonal and communications skills: 5%
- Fluency in English: 5%

Technical score of the candidate will be set based on an interview with him/her.

Annex V. Letter of Agreement for Support Services

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT FOR THE PROVISION OF SUPPORT SERVICES

Dear Mr. Shamugia,

1. Reference is made to consultations between officials of the Government of Georgia (hereinafter referred to as "the Government") and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant programme support document or project document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme/project:

(a) Identification and/or recruitment of project and programme personnel;

(b) Identification and facilitation of training activities;

(c) Procurement of goods and services;

4. The procurement of goods and services and the recruitment of project and programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the programme support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a programme or project, the annex to the programme support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.

5. The relevant provisions of the UNDP Standard Basic Assistance Agreement with the Government of Georgia (the "SBAA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the programme support document or project document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the programme support document or project document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.

Yours sincerely,

DocuSigned by:
87B6354624D7437...

United Nations Development Programme Tbilisi Georgia

Signed on behalf of UNDP
Nick Beresford
Resident Representative

MINISTRY OF ENVIRONMENTAL PROTECTION AND AGRICULTURE OF GEORGIA

For the Government
Otar Shamugia
Minister
Ministry of Environmental Protection and Agriculture of Georgia

Attachment

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the Ministry of Environment Protection and Agriculture, the institution designated by the Government of Georgia and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project "**HCFCs TOTAL PHASE-OUT MANAGEMENT PLAN (HPMP) - Second (2nd) Stage**" (Atlas Project ID/Award ID number: 00104411 Atlas Output ID/Project ID number: 00130228), (*"the Project*").

2. In accordance with the provisions of the letter of agreement signed on 27-Jun-2022 and the project document, the UNDP country office shall provide support services for the Project as described below.

3. Support services to be provided:

Support services (where applicable)	Schedule for the provision of the support services	Cost to UNDP of providing such support services	Amount and method of payments to UNDP (where appropriate)
Payments, disbursements and other financial transactions	2022-2031 Throughout implementation period, when applicable	Up to $ 2,196.50	Payment processes for consultants and other project suppliers and service providers 50 transactions @ $43.93
Recruitment of staff, project personnel and consultants	2022-2031 Throughout implementation period, when applicable	Up to $ 2,023.50	Recruitment of project staff and consultants 10 @ 283.07 2 @ 728.68
Procurement of services and goods, including disposal	2022-2031 Throughout implementation period, when applicable	Up to $ 1,104.56	Procurement not involving local CAP – 3 @ 257.43 Disposal of assets 1 @ 332.27
Travel authorization, visa requests, ticketing, and travel arrangements	2022-2031 Throughout implementation period, when applicable	Up to $ 289.50	Travel authorizations: 5 @ $30.88 Travel Claim F10: 5 @ $27.02
	Total	**Up to $ 5,614.06**	

4. Description of functions and responsibilities of the parties involved:

UNDP will provide support services to the Ministry as described in the paragraph 3 above in accordance with UNDP rules and procedures; it retains ultimate accountability for the effective implementation of the project;

The UNDP will provide support to the National Project Director (appointed by MEPA) in order to maximize the programme's impact as well as the quality of its products. UNDP will be responsible for administering resources in

accordance with the specific objectives defined in the Project Document, and in keeping with the key principles of transparency, competitiveness, efficiency and economy. The financial management and accountability for the resources allocated, as well as other activities related to the execution of programme activities will be undertaken under the direct supervision of the UNDP Country Office.

The Ministry through its National Project Director (NPD) designated from its staff, will approve annual work plans and submit them to UNDP country office in a timely manner;

The Ministry through its NPD or other duly authorized person will monitor and assure that the project funds are spent in accordance with Annual Work Plan (AWP) by authorizing and signing Combined Delivery Reports (CDRs) by end of each quarter.

Annex VI. Draft Agreement between the Government of Georgia and the Executive Committee of the Multilateral Fund

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF GEORGIA AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE II OF THE HCFC PHASE-OUT MANAGEMENT PLAN

Purpose

This Agreement represents the understanding of the Government of Georgia (the "Country") and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A ("The Substances") to a sustained level of zero ODP tonnes by 1 January 2030, allowing the 2.5% servicing tail during 2030-2040, in compliance with Montreal Protocol schedule.

The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A ("The Targets, and Funding") in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in row 4.1.3 (remaining consumption eligible for funding).

Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees, in principle, to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A ("Funding Approval Schedule").

The Country agrees to implement this Agreement in accordance with the stage II of the HCFC phase-out management plan (HPMP) approved ("the Plan"). In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.

Conditions for funding release

The Executive Committee will only provide the Funding in accordance with the Funding Approval Schedule when the Country satisfies the following conditions at least eight weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:

That the Country has met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved. Years for which there are no due country programme implementation reports at the date of the Executive Committee meeting at which the funding request is being presented are exempted;

That the meeting of these Targets has been independently verified for all relevant years, unless the Executive Committee decided that such verification would not be required;

That the Country had submitted a Tranche Implementation Report in the form of Appendix 4-A ("Format of Tranche Implementation Reports and Plans") covering each previous calendar year; that it had achieved a significant level

of implementation of activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and

That the Country has submitted a Tranche Implementation Plan in the form of Appendix 4-A covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

Monitoring

The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A ("Monitoring Institutions and Roles") will monitor and report on implementation of the activities in the previous Tranche Implementation Plans in accordance with their roles and responsibilities set out in the same appendix.

Flexibility in the reallocation of funds

The Executive Committee agrees that the Country may have the flexibility to reallocate part or all of the approved funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:

Reallocations categorized as major changes must be documented in advance either in a Tranche Implementation Plan as foreseen in sub-paragraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:

Issues potentially concerning the rules and policies of the Multilateral Fund;

Changes which would modify any clause of this Agreement;

Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches;

Provision of funding for activities not included in the current endorsed Tranche Implementation Plan, or removal of an activity in the Tranche Implementation Plan, with a cost greater than 30 per cent of the total cost of the last approved tranche; and

Changes in alternative technologies, on the understanding that any submission for such a request would identify the associated incremental costs, the potential impact to the climate, and any differences in ODP tonnes to be phased out if applicable, as well as confirm that the Country agrees that potential savings related to the change of technology would decrease the overall funding level under this Agreement accordingly;

Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the subsequent Tranche Implementation Report;

The Country agrees, in cases where HFC technologies have been chosen as an alternative to HCFCs, and taking into account national circumstances related to health and safety: to monitor the availability of substitutes and alternatives that further minimize impacts on the climate; to consider, in the review of regulations standards and

incentives adequate provisions that encourage introduction of such alternatives; and to consider the potential for adoption of cost-effective alternatives that minimize the climate impact in the implementation of the HPMP, as appropriate, and inform the Executive Committee on the progress accordingly in tranche implementation reports; and

Any remaining funds held by the bilateral or implementing agencies or the Country under the Plan will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

Considerations for the refrigeration servicing sector

Specific attention will be paid to the execution of the activities in the refrigeration servicing sector included in the Plan, in particular:

The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and

The Country and relevant bilateral and/or implementing agencies would take into consideration relevant decisions on the refrigeration servicing sector during the implementation of the Plan.

Bilateral and implementing agencies

The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNDP has agreed to be the lead implementing agency (the "Lead IA") in respect of the Country's activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of the Lead IA taking part in this Agreement.

The Lead IA will be responsible for ensuring co-ordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per sub-paragraph 5(b). The role of the Lead IA is contained in Appendix 6-A. The Executive Committee agrees, in principle, to provide the Lead IA with the fees set out in row 2.2 of Appendix 2-A.

Non-compliance with the Agreement

Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amount set out in Appendix 7-A ("Reductions in Funding for Failure to Comply") in respect of each ODP kg of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement, and take related decisions. Once decisions are taken, the specific case of non-compliance with this Agreement will not be an impediment for the provision of funding for future tranches as per paragraph 5 above.

The Funding of this Agreement will not be modified on the basis of any future Executive Committee decisions that may affect the funding of any other consumption sector projects or any other related activities in the Country.

The Country will comply with any reasonable request of the Executive Committee, the Lead IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA with access to the information necessary to verify compliance with this Agreement.

Date of completion

The completion of the Plan and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should at that time there still be activities that are outstanding, and which were foreseen in the last Tranche Implementation Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion of the Plan will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per sub-paragraphs 1(a), 1(b), 1(d), and 1(e) of Appendix 4-A will continue until the time of the completion of the Plan unless otherwise specified by the Executive Committee.

Validity

All of the conditions set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

This Agreement may be modified or terminated only by mutual written agreement of the Country and the Executive Committee of the Multilateral Fund.