UNITED NATIONS DEVELOPMENT PROGRAMME

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PROJECT DOCUMENT

Guyana

Project Title: HCFC Phase-out Management Plan Stage-II

Project Number: 000100444

Implementing Partner: Ministry of Agriculture

Start Date: July 2016 **End Date:** December 2030 **PAC Meeting date**[1]**:** June 3, 2016

Brief Description

The 75th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol approved an HCFC Phase-out Management Plan (HPMP), supported by UNEP and UNDP, for the implementation of stage II of the HPMP. The Government of Guyana is proposing to follow the Montreal Protocol schedule and adopt a staged approach to achieving the complete phase-out of HCFCs by 2030. The current submission consists of stage II of the HPMP to achieve a 35% reduction by 2020 and focuses largely on activities for the servicing sector using HCFC-22. Guyana will reduce the demand for HCFC-22 for servicing of existing equipment through HCFC recovery and recycling, use of refrigeration identifiers, equipping laboratories, and by strengthening training of technicians and building their capacity for better service practices. UNDP is the cooperating implementing agency for the project.

Contributing Outcome (UNDAF/CPD):
Improved functional capacity of key natural resources and disaster risk management institutions.

Indicative Output(s):

1: Training institutions equipped to deliver a better quality and advanced level of institutional refrigeration and air conditioning training in Guyana. 2: Enhanced capabilities for monitoring the importation of ozone depleting substances in Guyana. 3: Establishment of a recovery and recycling programme to minimise the demand for new ozone depleting substance in Guyana.

Total resources required:		US$541,500[2]
Total resources allocated:		
	UNDP TRAC:	
	Donor: MLF	US$541,500
	Donor:	
	Government:	
	In-Kind:	
Unfunded:		

Agreed by (signatures)[3]:

UNDP	Ministry of Agriculture
Print Name: Berdi Berdiyev, Resident Representative a.i.	Print Name: Dacia Ferguson, Permanent Secretary (ag)
Date: 06.02.2025	Date: 2025/12/31

[1] First Project Approval Committee (PAC) to approve the HCFC Phase-out Management Plan (HPMP took place on June 3rd, 2016. Second PAC to approve the substantive revision took place November 27, 2024.

[2] As per the 75th Meeting of the Executive Committee of the Multilateral Fund (FML) for the Implementation of the Montreal Protocol on the HPMP Stage 2 agreement for Guyana, the UNDP's budget as cooperating agency is 441,500. MLF budgets are allocated on tranche-basis (five tranches are expected in general). In order to access tranches, the country must meet specific criteria such as implementation of activities and over 20% expenditure of the current tranche. As per 93rd Meeting of the Executive Committee of the FML 100,000 additional funds was approved to support additional activities to maintain energy efficiency in the refrigeration servicing sector.

[3] Note: Adjust signatures as needed

Ministry of Finance
S Pasha Print Name: SUKRISHNAIAH PASHA
Date: 29/01/2025

I. DEVELOPMENT CHALLENGE

Guyana does not have any hydrochlorofluorocarbons (HCFC) based manufacturing activity. Guyana imports HCFC-22 only. Every few years, a small quantity of HCFC-141b is imported. This is used for flushing systems, particularly those where the compressors have burnt out due to voltage fluctuation. All HCFCs used in Guyana go into the servicing of HCFC-based equipment. The refrigeration and air-conditioning sector is serviced by twenty-two "large" service agencies employing between two and twelve technicians each, and a total of about 200 technicians. The remainder of the formal sector comprises approximately 400 technicians employed in large industrial establishments, office complexes, hotels, car dealerships, and commercial establishments, or operating as independent contractors throughout the country. Most of these technicians have received formal training either in technical colleges overseas or at the Guyana Technical Institutes. In addition, about 550 of these technicians have been trained in Good Refrigeration and Air-conditioning Management Practices and Recovery and Recycling under the Refrigerant Management Plan (RMP) and Terminal Phase-out Management Plan (TPMP) projects.
The informal sector comprises approximately 400 persons generally operating on their own. They have not received formal training but acquired some relevant skills working with others. These technicians operate in make-shift sheds, under trees, or on the roadside, and are active in both domestic and Mobile Air Conditioning (MAC) sectors mainly on a part-time basis. The predominant activity of technicians is the on-site servicing of refrigeration and air-conditioning systems.

There are a few design and construction projects for larger refrigeration systems, mainly involving the conversion of shipping containers into freezers and coolers. The technicians in Guyana, with support from the National Ozone Action Unit (NOAU) established the Guyana Air-conditioning, Refrigeration and Ventilation Association (GARVA) whose mandate includes capacity development and information sharing on Ozone Depleting Substances (ODS) phase-out among its members. Unfortunately, it has not been able to become fully active. Efforts are on-going to fully resuscitate GARVA. The resuscitation of this association will be pertinent to the implementation of the HPMP.

II. STRATEGY (1/2 PAGE - 3 PAGES RECOMMENDED)

In determining its strategy to meet its compliance targets for HCFC phase out the government of Guyana took the following into consideration:

i. The country has successfully phased-out Annex A chlorofluorocarbons (CFCs) and the lessons learned as well as the systems and structures created to achieve this will help to inform the way forward;
ii. There are large stocks of HCFC-based equipment in service and to the extent possible, these should be allowed to reach the end of their useful life before decommissioning;
iii. In the context of global efforts to address climate change and in particular, the government of Guyana's Low Carbon Development Strategy (LCDS), climate considerations will have considerable influence on technology choices;
iv. Technology choices will be informed by availability, cost, health and safety considerations, suitability to local conditions and climate impact;
v. The ability of the service sector to operate effectively in an HCFC-free environment will be central to the success of the phase out strategy;
vi. An appropriate regulatory framework with effective enforcement systems served the CFC phase-out well and has been introduced early in the HCFC phase out programme;
vii. Education and awareness is the foundation on which the entire strategy will be built.
viii. Revival of the technicians' organizations will be critical to achieve the HCFC phase-out.

These considerations persuaded the government of Guyana to agree to follow the Montreal Protocol phase out schedule for HCFCs and implement the action plan to meet the first control measures which comprised a freeze in consumption at the baseline level in 2013 and a 10% reduction in 2015.

Following a meeting with a good representation of stakeholders in the context of preparing the Stage II HPMP, there was consensus that Guyana could achieve an accelerated phase out by 2025 with a small percentage requirement (2.5% total of baseline) till 2030. The ban being enforced on import of equipment using HCFCs since 2013 will leave very few comfort equipment in operation by 2025, while larger equipment would soon be reaching end of life. Good Refrigerant Management Practices and a successful recovery and recycling project would be able to meet the remaining needs for HCFC-22.

The underlying consideration in agreeing to go with an accelerated phase out was commercial and economic availability of new technologies and refrigerants from around 2020, and the support through training and servicing equipment for these new technologies as was done with funding from the Multilateral Fund of the HPMP Stage-I.

Guyana has achieved the 10% reduction in 2015 for their Stage I strategy. For Stage II, Guyana proposes to follow an accelerated HCFC phase-out schedule, phasing out HCFC by 2025, with a small percentage (2.5% total of baseline) till 2030.

Guyana commits to the following control measures with the support of funding and technical assistance from the Multilateral Fund and implementing agencies:

(i) Reduce consumption of HCFCs by 10% from 2015
(ii) Reduce consumption of HCFCs by 35% or more from 2020
(iii) Achieve 97.5% phase-out from 2025.

The proposed quotas from 2016 to 2030 are shown in the table below.

MP Reqmt		**Quota for Phase Out by 2030**	
	ODP T	**ODP T**	**HCFC-22 (MT) eq.**
Baseline	**1.80**		
2015	**1.62**	**1.610**	**25.820 + 2.0 R141b**
2016		1.520	27.636
2017		1.420	25.818
2018		1.320	24.000
2019		1.220	22.182
2020	**1.17**	**1.120**	**20.364**
2021		0.905	16.455
2022		0.690	12.545
2023		0.475	8.636
2024		0.260	4.727
2025	**0.59**	**0.045***	**0.818**
2026		0.036	0.655
2027		0.027	0.491
2028		0.018	0.327
2029		0.009	0.164
2030	**0.05**	**0.000**	**0.000**

* The annual average of 2.5% is restricted to the servicing of refrigeration and air-conditioning equipment existing on 1 January 2025 for the period 2025-2030.

It should be noted that the quota may be revised each year depending on what the consumption was in the previous years.

The overarching strategy that Guyana expects to implement is based on the assumption that new commercially viable refrigeration and, in particular, air-conditioning technologies that use zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP) refrigerants in energy efficient equipment will become available in the coming decade. The strategy will be a dynamic one, with changes and fine tuning being done as the circumstances require. The overarching strategy builds on the elements described below.

a) Regulatory
b) Capacity Building
c) Technical Assistance Activities
d) Public Awareness
e) Project Coordination and Management

UNDP Guyana will coordinate delivery of support to *Technical Assistance Activities* as follows:

Refrigerant Identifiers

There is a need for sophisticated refrigerant identifiers capable of identifying blends and a large range of refrigerants. It is proposed to procure 2 to 3 of such identifiers and a few simpler identifiers. One of each identifier will be held at the NOAU and the remaining given to Customs.

Recovery/Recycling machines, cylinders, spares and consumables

The list of equipment procured during implementation of Stage I of the HPMP is shown in the table below.

ITEM DESCRIPTION (make and model)	Quantity	Condition
TST-2002-P-410+ 4002213 Pressure Gauge	12	Good
TST-2002-P-80-E10 + 4002213- R-22 Pressure Gauge	12	Good
BPV-31 Line Piercing Valve	100	Good
TST-3 Round Inspection Mirror	100	Good
TST-12005 Digital Scale	5	Good
TST-275-L Flaring Tool	10	Good
4006817 Adaptor for HC	10	Good
TST-8875 Infrared Thermometer	10	Good
VG-64 Digital Vacuum Gauge	25	Good
PENTA III 5 Points Thermometer	35	Good
TST-OZONE Recovery Bag	30	Good
TST-342 Piercing Plier	50	Good
TST-250 Leak Detector	10	Good

Financing for the project implementation will be transferred in five (5) traches dully approved by the Executive Committee (ExCom) of the Multilateral Fund for the Implementation of the Montreal Protocol. Until December 2023, 3 (three) tranches has been approved:

- Tranche 1, approved by the ExCom 75 (November, 2015): $ USD 159,750.[4]
- Tranche 2, approved by the ExCom 83 (May, 2019): $ USD 66,750.[5]
- Tranche 3, approved by the ExCom 92 (May, 2023): $ USD 125,000.[6]

Also, funding ($ USD 100,000.00)[7] for additional activities to maintain energy efficiency in the refrigeration servicing sector, including both national and international consultancies ant training activities to strengthen national capacities. (ExCom 93, December 2023)

During its implementation, the Stage II HPMP proposes to procure additional equipment, particularly recovery/recycling equipment and refillable cylinders to hand over to the larger technicians. It is expected the R&R machines will be particularly relevant in reducing the demand for virgin HCFC-22, allowing availability of HCFC-22 for commercial/industrial equipment operations till the end of their useful life. The detailed list will be finalised after approval of the project, and estimating the needs of the service technicians, the number of higher capacity and lower capacity recovery/recycling machines potentially required etc. The equipment will include recovery and recycling machines, spares and consumables, refillable cylinders and flushing equipment. If the funding allows, some additional tools may also be procured.

Some of the equipment will also be placed at training institution(s), to train both existing and new technicians in the proper use and handling of the equipment.

Support for Training Institution

It is proposed to equip the training institutions with prototype/training equipment for three laboratories:

- Air Conditioning (AC) Laboratory Unit: At least 3 pilot splits to put in one training centre/school (and test hypothesis of regular maintenance X retrofit in different designs): 1 for HCFC-22; 1 for R-410A; 1 for R-290a.

- Refrigeration Laboratory: Procure separate components and have a consultant assemble a training board that fits Guyana needs. It would consist of compressor, heat exchangers, valves, tube lines, controllers, etc. in a smaller scale unit.

- Flushing Laboratory: Equipped with Nitrogen injector, cylinder, regulator and adapters; flushing units and flushing liquids.

Equipment & Tools for use with new technology

Post 2020, it is hoped that new technologies will be commercially available that use zero ODP and low GWP refrigerants. Refrigerant identifiers, servicing tools and recovery and recycling equipment will be required to encourage the use of these technologies.

Training in use of new technology equipment

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[4] For further reference consult ExCom 75, paragraph 29, b), iii), page 8.

[5] For further reference consult ExCom 83, paragraph 11, c), page 5.

[6] For further reference consult ExCom 92, paragraph 12, e), page 5.

[7] For further reference consult ExCom 93, paragraph 150, a) – viii), page 33 and Annex Annex XIV "List of projects and activities approved for funding", page 27.

Training of master trainers in the new technologies will be required to ensure proper deployment of training and knowledge. Additional funding has been approved (ExCom 93, 2023) to support the training activities.

III. RESULTS AND PARTNERSHIPS (1.5 - 5 PAGES RECOMMENDED)

As per Seventy-fifth Meeting Executive Committee (ExCom 75) of the Multilateral Fund for the Implementation of the Montreal Protocol (November 2015) the scope of the activities to be implemented by UNDP in Guyana is as follow:[8]

- Purchase of refrigerant identifiers;
- Purchase of recovery and recycling machines, cylinders, tools, spare parts and consumables;
- Purchase of equipment for seven (7) training institutions and establishing training laboratories.

Also, additional activities will be carried out to maintain energy efficiency in the refrigeration servicing sector, including both national and international consultancies ant training activities to strengthen national capacities.

Through the implementation of these activities, it is expected support the achievement of key results in Guyana related to strengthening the capacities of the RAC sector.

Expected Results

Output 1: Refrigeration and air conditioning service sector equipped and strengthened to offer specialised services towards reducing importation and use of ODS.

Output 2: Selected technicians and Institutions/businesses capacity to recover and reuse (R/R) refrigerants and retrofit to alternatives improved.

Output 3: Activities to maintain energy efficiency in the refrigeration servicing sector.

Resources Required to Achieve the Expected Results

Partnerships

UNDP as the Cooperating Implementing Agency (IA) will be responsible for the following activities:

(a) Providing policy development assistance when required;

(b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA (UNEP) to ensure a co-ordinated sequence in the activities; and

(c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports

Ministry of Agriculture / Hydrometeorological Service is the focal point for the implementation of the Montreal Protocol in Guyana. The National Ozone Action Unit (NOAU) is located within the Hydrometeorological Service of the Ministry of Agriculture. It is responsible for the execution of projects approved under the Country Programme (CP), RMP, TPMP and now HPMP, reporting requirements under the Protocol and all other activities necessary, including public education and

[8] All activities on HPMPs are approved in general to the overall Stage II HPMP was approved by the ExCom 75 (November 2015). Even specific activities are approved upon each tranche, the PRODOC must remain linked to the activities approved in general, not requiring the PRODOC to be modified upon tranche approval.

awareness programmes to ensure that Guyana complies with the provisions of the Protocol. The National Ozone Action Unit also issues licenses for the importation of ozone depleting substances in Guyana and assists the Guyana Revenue Authority in monitoring the importation of these substances or equipment containing them.

Risks and Assumptions

The key risk is delay due to Government procurement of goods and services. UNDP is willing to offer procurement support. Other risks are illegal importation of ODS due to cost considerations and open borders, and insufficient numbers of certified technicians. Refer to the full risk log, attached as Annex 1.

Stakeholder Engagement

The work will be undertaken with a high level of stakeholder consultation with various Government agencies, external stakeholders and the general public.

- The **National Ozone Action Unit (NOAU)** was established with Multilateral Fund support under the IS project, and is responsible for the implementation of the Montreal Protocol in Guyana. The NOAU is within the Ministry of Agriculture, Hydrometeorological Service. In addition, a number of other institutions and associations form part of the institutional framework to manage national level implementation of the Protocol. The key ones are:
    - **Guyana Revenue Authority (GRA):** The Guyana Revenue Authority monitors the importation and exportation of ozone depleting substances and equipment that contain them or require them for their continued use in Guyana. In addition to its trade monitoring functions, the GRA also assisted with the training of Customs and other enforcement officers during the execution of the RPM, RMP Review, TPMP and now the HPMP.
    - **Ministry of Education:** The Ministry of Education through its technical institutes supports technology transfer through the training of technicians. The Government Technical Institute has been training technicians over the years at the craft level. A full-time refrigeration and air conditioning programme was introduced at the Kuru Kuru Training Centre in September, 2014. Currently, there are 19 (17 males and 2 females) students enrolled in this programme. It is projected that approximately 18 students will benefit annually from the refrigeration and air conditioning programme. Similarly, the Sophia Training Centre's R&AC training program was upgraded with training equipment purchased under the TPMP and HPMP Stage I projects. The Sophia Training Centre conducts a six-month training programme for individuals between the ages of 15-25 years. The technical training centre provides training to approximately 18 students annually in the field of refrigeration and air conditioning. Plans are underway to extend this training to the Linden Technical Institute, Essequibo Technical Institute (ETI), Upper Corentyne Industrial Training Centre (UCITC) and the New Amsterdam Technical Institute. Currently, the ETI and UCITC has full time training programmes for Level 1 Technician Certificate in refrigeration. It is expected that this will contribute to a large degree to an expanding pool of better trained technicians.
    - ***Guyana Air-Conditioning, Refrigeration & Ventilation Association (GARVA):*** GARVA was one of the organisations identified in the Terminal Phase out Management Plan to support Guyana's phase out programme. Unfortunately, it has not been able to become active and relevant. Efforts are currently underway to resuscitate GARVA. The resuscitation of this association will be pertinent to the continued implementation of the HPMP.

Sustainability and Scaling Up

Guyana's previous strategy was to encourage imports of new R-410A based systems. The new strategy will be focussed on increasing the importation of new zero ODP, low GWP refrigerant technology that is commercially available. The Government will encourage retrofits of small equipment to zero ODP, low GWP alternatives after ensuring all Safety Codes, Regulations and Standards specific to flammable refrigerants and other new refrigerants are in place and implemented. As such, there will be increasing reductions to its carbon emissions with the use of

new low GWP alternatives being commercially available. However, indirect reductions in carbon emissions as a result of reduced electricity consumption can also be realised in using new alternative technologies too.

IV. PROJECT MANAGEMENT (1/2 PAGES - 2 PAGES RECOMMENDED)

Project Management

The project will be operationalized in Georgetown and in other coastal regions of Guyana, as needed. The NOAU, located within the Hydromet Department of the Ministry of Agriculture, Georgetown, is the location of the physical project office. The HPMP Stage-II will provide technical guidance to other technology intensive projects such as the Japan-Caribbean Climate Change Partnership project. UNDP will deliver procurement support to the HPMP Stage-II project as well as quality assurance and monitoring and evaluation support.

V. RESULTS FRAMEWORK[9]

Country Programme Outcome: Improved functional capacity of key natural resources and disaster risk management institutions

Country Programme Outcome indicator: # of recommendations from Multilateral Environment Agreements used for planning low carbon development initiatives

Applicable Output(s) from the UNDP Strategic Plan: Effective institutional, legislative and policy frameworks in place to enhance the implementation of disaster and climate risk management measures at national and sub-national levels

Project title and Atlas Project Number: HCFC Phase-out Management Plan Stage-II

EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)															DATA COLLECTION METHODS & RISKS
			Value	Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Output 1&2 Purchase of equipment for Training institutions to deliver a better quality and advanced level of institutionalised refrigeration and air conditi	Amount of chemicals reduced, disposed, or avoided (metric tons) [10]	Yearly imports consumption of ODS (NOU, Customs, Ministry of Trade, Importers)	32.73 (MT)	2009-2010		27.64	25.82	24.00	22.18	20.36	16.46	12.54	8.64	4.73	0.82	0.65	0.49	0.32	0.16	0.00	Quantitative (surveys) Stakeholder Consultation Verification of HCFC Phase-out from Customs and Ministry of Industry
	Montreal Protocol consumption limits		1.8 (ODP)		1.62	1.62	1.62	1.62	1.62	1.17	1.17	1.17	1.17	1.17	0.59	0.59	0.59	0.59	0.59	0.05	

[9] To the indicators "Montreal Protocol consumption limits" and "Maximum allowable consumption (ODP tonnes)" annual targets were defined by the Seventy-fifth Meeting Executive Committee (ExCom 75) of the Multilateral Fund for the Implementation of the Montreal Protocol (November 2015) Appendix 2A: "The Targets, and Funding".

[10] Integrated results and Resources Framework (IRRF). Signature Solution 4: Environment, Indicator f) "Amount of chemicals reduced, disposed or avoided (metric tons)". Updated on April, 2023. Page 32.

oning training in Guyana	Maximum allowable consumption (ODP tonnes)		1.8 (ODP)		1.62	1.52	1.42	1.32	1.22	1.12	0.91	0.69	0.48	0.26	0.05	0.05	0.05	0.05	0.05	0	
Output 3 Activities to maintain energy efficiency in the refrigeration servicing sector	Number of beneficiaries of training actions, disaggregated by sex	*Project Management Unit Report*	0	2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	X	X	X	NA	NA	NA	NA	

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: *[Note: monitoring and evaluation plans should be adapted to project context, as needed]*

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.	NOAU	Internal
Monitor and Manage Risk	Identify specific risks that may threaten the 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.	NOAU	Internal
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.	NOAU	Internal
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.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	NOAU	Internal
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.	NOAU	Internal

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
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)		NOAU	Internal
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.	Specify frequency (i.e., 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.	NOAU	Internal

Evaluation Plan[11]

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNDAF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding
Verification Report / Tranche 2	NOU				Customs data / MOU	USD$6,000 / Project
Verification Report / Tranche 3	NOU				Customs data / MOU	USD$6,000 / Project
Verification Report / Tranche 4	NOU				Customs data / MOU	USD$6,000 / Project
Verification Report / Tranche 5	NOU				Customs data / MOU	USD$6,000 / Project

[11] Verification reports are carried out by United Nation Environmental programme (UNEP) as lead agency to the project. UNDP will facilitates jointly with the national institutions the information be available to carry out the verification process.

MULTI-YEAR WORK PLAN [12][13]

All anticipated programmatic and operational costs to support the project, including development effectiveness and implementation support arrangements, need to be identified, estimated and fully costed in the project budget under the relevant output(s). This includes activities that directly support the project, such as communication, human resources, procurement, finance, audit, policy advisory, quality assurance, reporting, management, etc. All services which are directly related to the project need to be disclosed transparently in the project document.

Total Budget and Work Plan for GUY CO			
Award Quantum	00110505	Atlas Output Project ID:	00096506
Award Title:	HPMP		
Business Unit:	UNDP-GUY		
Project Title:	HCFC Phase-Out Management Plan – Stage II		
Agency	UNDP, UNEP - project lead		
Donor	Multilateral Fund for the Implementation of the Montreal Protocol		
Implementing Partner:	Min of Agriculture -		

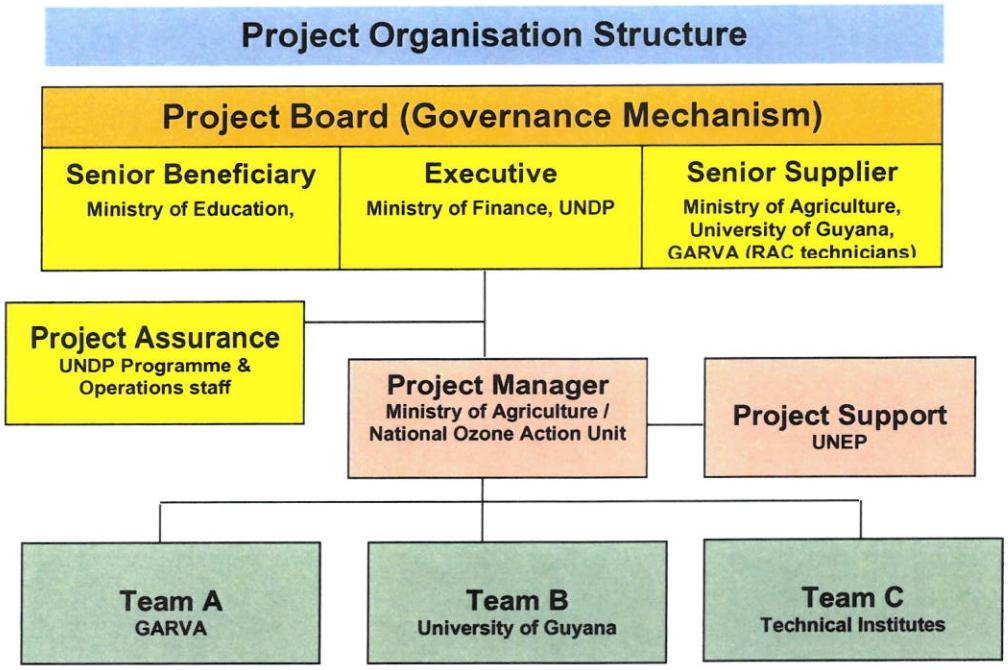
							Implementation Period								
Activity	**Atlas Implementing Agent (Responsible Party, IP, or UNDP)**	**Fund ID**	**Donor Name**	**Atlas Budgetary Account Code**	**ATLAS Budget Account Description**	**Amount Year 2015 (USD)**	**Amount year 2018**	**Amount Year 2021**	**Amount Year 2023**	**Amount Year 2024**	**Amount Year 2025**	**Amount Year 2026**	**Amount Year 2027**	**Amount Year 2030 (USD)**	**Total (USD) per Activity**

[12] Cost definitions and classifications for programme and development effectiveness costs to be charged to the project are defined in the Executive Board decision DP/2010/32

[13] Changes to a project budget affecting the scope (outputs), completion date, or total estimated project costs require a formal budget revision that must be signed by the project board. In other cases, the UNDP programme manager alone may sign the revision provided the other signatories have no objection. This procedure may be applied for example when the purpose of the revision is only to re-phase activities among years.

Purchasing of refrigerant identifiers, recovery and recycling machines and service tools.	**UNDP GUYCO**	**63080**	**Multilateral Fund**	72210	Machinery and Equipment	25,000	-	25,000	-			-		-	50,000
					Purchase of recovery and recycling machines, cylinders, tools, spare parts and consumables	76,750	66,750	100,000	35,000				55,000	-	333,500
					Purchase of Equipment for 7 training institutions and establishing training laboratories	58,000	-	-	-			-		-	58,000
					Additional activities to maintain energy efficiency for the servicing sector					35,000	45,000	20,000	-	-	100,000
Sub total technical components						159,750	66,750	125,000	35,000	35000	45000	20,000	55,000	-	541,500
				PROJECT TOTAL											**541,500**

VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS



Roles and Responsibilities

5.2 An Executive: The Executive is comprised of the Ministry of Finance and UNDP, and its decisions will be made by consensus. The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The Executive has to ensure that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of beneficiary and supplier. The Executive is responsible for overall assurance of the project as will be described. If the project warrants it, the Executive may delegate some responsibility for the project assurance functions.

5.3 Senior Beneficiary: individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. Government Technical Institute will act as senior beneficiary. The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role will not be split between too many people.

5.4 Senior Supplier: The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. This includes technical guidance on designing, developing, facilitating, procuring and implementing the project. The Ministry of Agriculture and UNDP will act as senior supplier for this project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role.

5.5 The National Ozone Action Unit (NOAU): The National Ozone Action Unit, under the direction of the Chief Hydrometeorological Officer has the authority to run the project on a day-to-day basis on behalf of the project board within the constraints laid down by the Board and in coordination with the Ministry of Agriculture. The National Ozone Action Unit's prime responsibility is to ensure that the project produces the results (outputs) specified in the project document, to the required standard of quality, and within the specified constraints of time and cost. NOAU shall coordinate exchange of information among other projects; this includes ensuring open channels of communication with similar programmes/ projects in the country to facilitate synergies and upstream policy engagements.

5.6 **Project Assurance:** Project Assurance is the responsibility of the Project Board. In addition, UNDP will augment this role to ensure that its fiduciary, environmental, social safeguards and standards are maintained. Further, the project assurance role supports the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed.

Project Board

5.7 The Project Board (PB) is responsible for making management decision, in particular when guidance is required by the NOAU. The Project Board plays a critical role in project monitoring and evaluation by ensuring the quality of these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflict within the project or negotiates a solution to any problem with external bodies. The PB approves the Annual Work Plan, and can also consider and approve the quarterly plans. Its role will be to provide guidelines for general actions to the NOAU, approve annual reports and annual operational plans, recommend or endorse substantive changes in the Project Document, follow up on midterm and terminal evaluations and suggest changes in activities without losing sight of strategic objectives. To ensure the project's results, board decisions must meet standards assuring best cost-benefit, integrity, transparency, and achievement of the best results and the competitiveness of the initiatives.

5.8 In order to ensure project results, the Project Board's decisions will be made in accordance to standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition.

5.9 Representatives of stakeholders and rights-holders will be included in the Board as appropriate.

5.10 The PB will be convened and supported logistically by the NOAU and will meet at least once a year. These meetings will be financed by the project. The PB will provide overall guidance for the project throughout its implementation. Specifically the PB will be responsible for: (i) achieving co-ordination among the various government agencies; (ii) guiding the programme implementation process to ensure alignment with national and local planning processes and sustainable resource use and conservation policies, plans and conservation strategies; (iii) ensuring that activities are fully integrated between other developmental initiatives; (iv) overseeing the work being carried out by the implementation units and local committees, monitoring progress and approving reports; (v) overseeing the financial management and production of financial reports and, (vi) monitor the effectiveness of project implementation.

VIII. LEGAL CONTEXT AND RISK MANAGEMENT

LEGAL CONTEXT STANDARD CLAUSES

This project document shall be the instrument referred to as such in Article 1 of the SBAA between the Government of Guyana and UNDP, signed on May 3, 1977. 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 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.

RISK MANAGEMENT STANDARD CLAUSES

1. Consistent with the Article III of the SBAA, 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 [and the Project Cooperation Agreement between UNDP and the Implementing Partner][14].

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 and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document.
4. Consistent with UNDP's Programme and Operations Policies and Procedures, 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).

5. 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.

6. 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.

[14] Use bracketed text only when IP is an NGO/IGO

IX. ANNEXES

1. **Risk Analysis**. Use the standard Risk Log template. Please refer to the Deliverable Description of the Risk Log for instructions.

2. **Guyana HPMP Stage II document approved by the MLF Executive Committee.**

3. **Implementation Plan for this funding tranche as approved by the 92nd. Meeting of the Executive Committee.**

Annex 1: Risk Analysis. Use the standard Risk Log template. Please refer to the Deliverable Description of the Risk Log for instructions.

Project Title: HCFC Phase-out Management Plan Stage-II	**Award ID: 000100444**	**Date: 8 July 2016 / 27 November 2024**

#	Description[15]	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by	Last Update	Status
1	Project implementation delays due to procurement of specialised goods and services.	*3 June 2016*	Operational	Probability on a scale from 1 (low) to 5 (high) P = 3 Enter impact on a scale from 1 (low) to 5 (high) I = 4	NOAU to request UNDP to procure goods and services early in the life of the project implementation.	UNDP Programme Specialist	Project Board	27 November, 2024	No change
x 2	Personnel inadequately trained to work with equipment	3 June 2016	Regulatory	P = 2 I = 4	NOAU to work with GRA to ensure application of controls.	NOAU	Project Board	27 November, 2024	No change
3	Unwillingness of private technicians to provide reports to the National Ozone Action Unit (NOAU)	3 June 2016	Organizational	P = 2 I = 3	University of Guyana and GTI to offer certified courses, and Ministry of Education (MoE) and private sector to assist with quality assurance.	NOAU, UG, GTI and MoE	Project Board	27 November, 2024	No change
4	**SESP - Risk 1:**	April 5	Environmental	P = 2	University of	NOAU,	Project	27	No change

[15] Risk 1, 2 and 3 were identified on July 8, 2016, during the project formulation phase.

	Release of HCFCs into the atmosphere due to the inadequate handling of chemical substance regulated under international conventions.	2024		I = 3	Guyana and GTI to offer certified courses, and Ministry of Education (MoE) and private sector to assist with quality assurance.	UG, GTI and MoE	Board	November , 2024	

Annex 2: Guyana HPMP Stage II document approved by the MLF Executive Committee

HPMP2-1st tranche - ExCom 2015.pdf (Command Line)

HPMP2-2nd tranche - ExCom 2019.pdf (Command Line)

HPMP 2 -3rd tranche - ExCom 2023.pdf (Command Line)

DOA_GUY_EEF_93_TAS_38_Additional_activities_to_maintain_energy_efficiency_for_t (Command Line)

Annex 3: Implementation Plan for third funding tranche as approved by the 92nd. Meeting of the Executive Committee.

Attachment: Annual Work Plan (additional funding)

GUY/PHA/92/INV/36

Award ID	xxxxxxxx							
Project ID	00100444							
Project Title	HCFC phase-out management plan. (stage II. third tranche)							
Executing Agency	National Ozone Unit (NOU)							
	Responsible Party	**Source of funds**	**ATLAS Code**	**ATLAS Budget**	**Budget (US$)**			
				Description	**2023**	**2024**	**2025**	**Total**
ATLAS Activity 1	UNDP HQ B0084	63080	71200	International experts	5,000	5,000	5,000	15,000
	NOU	63080	71300	National consultants	6,000	20,000	10,000	36,000
	NOU	63080	71600	Travel	5,000	5,000	5,000	15,000
	NOU	63080	72100	Contractual Services - Companies	5,000	15,000	5,000	25,000
	NOU	63080	72200	Provision of tools and equipment	1,000	3,000	2,000	6,000
	NOU	63080	75700	Workshops	5,000	14,000	9,000	28,000
Total Activity 1.					27,000	62,000	36,000	**$125,000**

•Potential adjustments can be discussed with Kasper Koefoed.