



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/94/52

1 May 2024

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-fourth Meeting
Montreal, 27–31 May 2024
Item 9(d) of the provisional agenda¹

PROJECT PROPOSAL: SEYCHELLES

This document consists of the comments and recommendation of the Secretariat on the following project proposal:

Phase-down

- Kigali HFC implementation plan (stage I, first tranche) UNEP and Germany

¹ UNEP/OzL.Pro/ExCom/94/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Seychelles

PROJECT TITLE	AGENCY
Kigali HFC implementation plan (stage I)	UNEP (lead), Germany

LATEST ARTICLE 7 DATA (Annex F)	Year: 2023	83.81 mt	223,975 CO ₂ -eq tonnes
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SECTORAL HFC CONSUMPTION DATA (CO₂-eq tonnes) AND PLANNED ACTIVITIES

	Aerosol	Foam	Fire-fighting	AC and refrigeration			Servicing	Solvent	Other
				Manufacturing					
				Refrigeration	AC	Other			
As submitted (2022)							286,660		
CP report (2023)							223,975		
KIP stage I activities as agreed	No	No	No	No	No	No	Yes	No	No

AVERAGE 2020-2022 HFC CONSUMPTION IN SERVICING	72.34 mt	220,200 CO ₂ -eq tonnes
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BASELINE CONSUMPTION DATA (CO₂-eq tonnes)	2020	2021	2022	Average 2020-2022
HFC annual consumption	140,392	233,760	286,660	220,270
HCFC baseline (65%)				29,130
HFC baseline				249,400

HFC CONSUMPTION ELIGIBLE FOR FUNDING	
Starting point for sustained aggregate reductions	n/a
Previously approved HFC phase-down investment projects	No
Aggregate reductions from previously approved projects (CO ₂ -eq tonnes)	n/a

PROJECT DATA AS AGREED		2024*	2025 2026	2027	2028	2029	Total	
Consumption (CO ₂ -eq tonnes)	Montreal Protocol limits	249,400	249,400	249,400	249,400	224,460	n/a	
	Maximum allowable	249,400	249,400	249,400	249,400	224,460	n/a	
	Maximum allowable (%)	100	100	100	100	90	n/a	
Amounts recommended in principle (US \$)	UNEP	Project costs	64,836	0	20,424	0	0	85,260
		Support costs	8,429	0	2,655	0	0	11,084
	Germany	Project costs	16,844	0	55,896	0	0	72,740
		Support costs	2,190	0	7,266	0	0	9,456
	Total project costs		81,680	0	76,320	0	0	158,000
	Total support costs		10,619	0	9,921	0	0	20,540
	Total funds		92,299	0	86,241	0	0	178,540

* Recommended for approval at the present meeting

Reduction from stage I	24,940 CO ₂ -eq tonnes
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Secretariat's recommendation:	Individual consideration (Secretariat presentation not required)
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PROJECT DESCRIPTION

1. The present document contains the following sections:
 - I. Summary of the proposal as submitted
 - II. Background: Implementation status of the country's HCFC phase-out management plan
 - III. HFC consumption: Overview of the country's HFC consumption levels, trends, and sectoral uses
 - IV. Stage I of the Kigali HFC implementation plan, as submitted: Overarching strategy and plan of implementation for the first tranche
 - V. Secretariat's comments, including the agreed cost of activities
 - VI. Recommendation

I. Summary of the proposal as submitted

2. On behalf of the Government of Seychelles, UNEP as the lead implementing agency has submitted a request for stage I of the Kigali HFC implementation plan (KIP) at a total cost of US \$178,540, consisting of US \$80,000, plus agency support costs of US \$10,400, for UNEP and US \$78,000, plus agency support costs of US \$10,140, for the Government of Germany, as originally submitted.²

3. The implementation of stage I of the KIP will assist the Government of Seychelles in meeting the target of 10 per cent reduction from its HFC baseline consumption by 1 January 2029.

4. The first tranche of stage I of the KIP requested at this meeting amounts to US \$91,530, consisting of US \$50,000, plus agency support costs of US \$6,500, for UNEP and US \$31,000, plus agency support costs of US \$4,030, for the Government of Germany, as originally submitted, for the period of June 2024 to December 2026.

II. Background

Status of implementation of the HCFC phase-out management plan

5. Table 1 presents information on the HCFC phase-out management plan (HPMP) in Seychelles as of April 2023.

Table 1. HPMP implementation status for Seychelles

	Stage I
Meeting when HPMP was approved/updated	63 rd /70 th
Reduction from baseline	100% by 2025
Total project cost (US \$)	600,000
Date of completion (planned)	31 December 2026

Status of implementation of previous HFC-related activities

6. Table 2 presents an overview of activities implemented in Seychelles in the context of the Kigali Amendment that have been funded by the Multilateral Fund.

² As per the letter of 5 February 2024 from the Ministry of Agriculture, Climate Change and the Environment of Seychelles to the Secretariat.

Table 2. Previously approved HFC-related activities in Seychelles

Approval meeting	Project title	Implementing agency	Cost (US \$)	Date of completion
74 th	Survey of ODS alternatives at the national level	UNEP	40,000	May 2017
80 th	Enabling activities for HFC phase-down	Germany	95,000	December 2021

III. HFC consumption overview

HFC consumption levels

7. The country only imports HFCs for use in its refrigeration and air-conditioning (RAC) servicing sector. In 2023, the most consumed substances in terms of CO₂-equivalent (CO₂-eq) tonnage were R-410A (30.4 per cent of total HFC consumption), R-404A (24.1 per cent), R-507A (12.3 per cent), HFC-23 (11.3 per cent), and other HFCs (21.9 per cent). Table 3 presents the country's HFC consumption as reported to the Ozone Secretariat under Article 7 of the Montreal Protocol.

Table 3. HFC consumption in Seychelles (2019–2023 Article 7 data)

HFC	GWP	2019	2020	2021	2022	2023
Metric tonnes (mt)						
HFC-23	14,800	0.00	0.18	0.82	3.00	1.83
HFC-32	675	0.73	1.31	0.08	2.79	15.25
HFC-134a	1,430	11.78	11.65	10.09	12.78	3.30
HFC-227ea	3,220	0.00	1.64	0.00	0.00	1.71
R-404A	3,921.6	25.13	17.00	29.16	22.34	13.75
R-407A	2,107	0.00	0.00	0.17	0.20	0.13
R-407C	1,773.85	0.22	1.39	1.52	0.60	1.79
R-410A	2,087.5	26.83	10.03	17.72	17.83	32.66
R-417A	2,346	18.43	3.39	2.29	16.68	1.07
R-438A	2,264.435	0.00	0.45	0.00	0.90	2.15
R-449A	1,396.035	0.00	0.00	0.00	2.04	3.22
R-452A	2,139.52	0.00	0.00	0.35	0.08	0.06
R-507A	3,985	2.89	3.98	11.72	12.94	6.89
Total (mt)		86.08	51.01	73.90	92.19	83.81
CO₂-eq tonnes						
HFC-23	14,800	0	2,708	12,092	44,400	25,308
HFC-32	675	493	883	51	1,880	1,237
HFC-134a	1,430	16,845	16,663	14,425	18,276	21,811
HFC-227ea	3,220	0	5,271	0	0	10,640
R-404A	3,921.6	98,550	66,648	114,338	87,623	53,912
R-407A	2,107	0	0	356	425	263
R-407C	1,773.85	390	2,464	2,692	1,069	3,182
R-410A	2,087.5	56,008	20,941	36,991	37,221	68,178
R-417A	2,346	43,237	7,955	5,361	39,138	2,508
R-438A	2,264.435	0	1,019	0	2,038	4,878
R-449A	1,396.035	0	0	0	2,852	4,496
R-452A	2,139.52	0	0	755	169	121
R-507A	3,985	11,517	15,840	46,700	51,569	27,442
Total (CO₂-eq tonnes)		227,367	140,392	233,760	286,660	223,975

Established HFC baseline

8. The Government of Seychelles reported its Article 7 data for 2020–2022. The country's HFC consumption baseline has been established at 249,400 CO₂-eq tonnes by adding 65 per cent of its HCFC baseline (expressed in CO₂-eq tonnes) to its average HFC consumption in 2020–2022, as shown in table 4.

Table 4. HFC baseline calculation for Seychelles (CO₂-eq tonnes)

Baseline calculation components	2020	2021	2022
HFC annual consumption	140,392	233,760	286,660
HFC average consumption in 2020-2022			220,270
HCFC baseline (65%)			29,130
HFC baseline			249,400

Country programme implementation report

9. The sectoral HFC consumption data provided by the Government of Seychelles in its country programme (CP) implementation report for 2023 is consistent with the data reported under Article 7 of the Montreal Protocol. The consumption reported in CP data for 2022 is 1,170 CO₂-eq tonnes less than that in the Article 7 data, because 0.0791 mt (1,170 CO₂-eq tonnes) of R-452A was mistakenly reported in 2022, even though this import had been included in 2021 reporting. The Government has been advised to revise the Article 7 data to correct this minor oversight.

HFC consumption trends

10. The country's HFC consumption has been fluctuating over the last five years, with an increasing trend since 2019 due to the phase-out of HCFCs, economic development and growing demand for cooling, with numerous recent constructions with overseas investment opting for HFC-based technologies. The ban on the import of RAC equipment based on HCFC-22 and HCFC-123 has been in effect since 1 January 2023, likely contributing to the increased use of R-410A and, to a lesser extent, HFC-32, in the air-conditioning (AC) applications installed in new hotels and other buildings. The growing use of R-404A reflects the demand from fishing vessels in the commercial refrigeration subsector, while the increasing consumption of R-417A is mainly due to the retrofitting of HCFC-22-based equipment with this refrigerant, as well as to rising demand for fishing vessels.

HFC consumption by sector

11. Seychelles does not have manufacturing capacity using HFCs. All HFCs are imported exclusively for the servicing of RAC equipment installed in the country. The commercial and industrial refrigeration subsector has the highest HFC consumption (42.3 per cent in mt and 46.4 per cent in CO₂-eq tonnes), followed by domestic and commercial AC (29.0 per cent in mt and 18.1 per cent in CO₂-eq tonnes), marine refrigeration (22.0 per cent in mt and 32.0 per cent in CO₂-eq tonnes), and mobile air-conditioning (MAC) (5.6 per cent in mt and 2.6 per cent in CO₂-eq tonnes). The remaining 1 per cent is for the domestic refrigeration and transport refrigeration subsectors, as shown in tables 5 and 6.

Table 5. HFC consumption in the RAC servicing subsectors in Seychelles in mt (2022)

Substance	HFC-32	R-417A	R-410A	HFC-134a	R-404A	R-407C	R-407A	R-507A	Others*	Total	Share of total (%)
Domestic refrigeration	0	0	0	0.50	0	0	0	0	0	0.50	0.54
Domestic and commercial AC											
Split non-ducted units	2.79	3.44	15.00	0	0	0	0	0	0	21.23	23.04
Split ducted units	0	0	0	0	0	0.08	0.13	0	0	0.21	0.23
Rooftop ducted units	0	0	0	0	0	0.52	0.07	0	0	0.59	0.64
Multi-split units	0	0.46	1.31	0	0	0	0	0	0	1.77	1.92
AC chillers	0	0	1.46	1.47	0	0	0	0	0	2.93	3.18
Commercial and industrial refrigeration											
Centralized units	0	0	0	4.26	11.92	0	0	1.59	0	17.77	19.29
Process chillers	0	0	0	0.29	6.90	0	0	5.29	2.63	15.20	16.41
Stand-alone	0	0	0	0.44	0	0	0	0	0	0.44	0.48

	Substance	HFC-32	R-417A	R-410A	HFC-134a	R-404A	R-407C	R-407A	R-507A	Others*	Total	Share of total (%)
Condensing units		0	0	0.06	0.67	1.73	0	0	3.13	0	5.59	6.07
Marine refrigeration												
Marine vessels		0	12.78	0	0	1.27	0	0	2.93	3.31	20.29	22.03
Transport refrigeration												
Refrigerated trucks		0	0	0	0.01	0.52	0	0	0	0	0.53	0.58
MAC												
Large		0	0	0	3.75	0	0	0	0	0	3.75	4.07
Small		0	0	0	1.39	0	0	0	0	0	1.39	1.51
Total (mt)		2.79	16.68	17.83	12.78	22.34	0.60	0.20	12.94	5.94	92.19	100
Percentage (%)		3.02	18.11	19.36	13.87	24.26	0.65	0.22	14.05	6.45		100

* HFC-23, R-227ea, R-438A, R-449A and R-452A.

Table 6. HFC consumption in the RAC servicing subsectors in Seychelles in CO₂-eq tonnes (2022)

	Substance	HFC-32	R-417A	R-410A	HFC-134a	R-404A	R-407C	R-407A	R-507A	Others*	Total	Share of total (%)
Domestic refrigeration		0	0	0	715	0	0	0	0	0	715	0.25
Domestic and commercial AC												
Split non-ducted units		1,880	8,070	31,313	0	0	0	0	0	0	41,264	14.40
Split ducted units		0	0	0	0	0	146	274	0	0	420	0.15
Rooftop ducted units		0	0	0	0	0	922	151	0	0	1,073	0.37
Multi-split units		0	1,079	2,735	0	0	0	0	0	0	3,814	1.33
AC chillers		0	0	3,048	2,102	0	0	0	0	0	5,150	1.80
Commercial and industrial refrigeration												
Centralized units		0	0	0	6,092	46,745	0	0	6,339	0	59,177	20.66
Process chillers		0	0	0	415	27,073	0	0	21,081	4,188	52,757	18.41
Stand-alone		0	0	0	629	0	0	0	0	0	629	0.22
Condensing units		0	0	125	958	6,784	0	0	12,473	0	20,341	7.10
Marine refrigeration												
Marine vessels		0	29,989	0	0	4,980	0	0	11,676	45,102	91,747	32.02
Transport refrigeration												
Refrigerated trucks		0	0	0	14	2,039	0	0	0	0	2,054	0.72
MAC												
Large		0	0	0	5,363	0	0	0	0	0	5,363	1.87
Small		0	0	0	1,988	0	0	0	0	0	1,988	0.69
Total (CO₂-eq tonnes)		1,880	39,138	37,221	18,276	87,623	1,069	425	51,569	49,290	285,490	100
Percentage (%)		0.66	13.66	12.99	6.38	30.58	0.37	0.15	18.00	17.20		100

* HFC-23, R-227ea, R-438A, R-449A and R-452A.

Refrigeration and air-conditioning servicing sector

12. There are approximately 95 servicing technicians and 86 licensed RAC workshops in the country, 66 of which are individually licensed technicians and 20 are registered enterprises. Technicians, as well as students undergoing apprenticeship training in the sector, are mostly employed in hotels and at large servicing enterprises. The country is implementing a mandatory, three-tiered technician certification scheme, with training programmes ranging from one to two years in duration and validated by the Seychelles Qualifications Authority (SQA). Foreign technicians, estimated to make up around 30 per cent of the servicing workforce, are required to have their certificates approved by the SQA.

Domestic, commercial, industrial, transport, and marine refrigeration servicing

13. Industrial refrigeration includes large centralized systems and process chillers commonly used in industrial processes. This subsector accounts for approximately 39 per cent (in CO₂-eq tonnes) of total HFC consumption in the country. The largest users are breweries, fish factories, and fishing-related cold storage facilities. R-404A (42 per cent of total refrigerant use in the subsector in mt) and ammonia (26 per cent) are the most widely used refrigerants, followed by R-507A (16 per cent), R-134a (10 per cent), R-438A (5 per cent) and R-449A (1 per cent).

14. The marine sector, including fisheries, large fishing and leisure vessels with RAC installations and semi-industrial vessels, accounts for 32 per cent of national HFC use. The dominant refrigerant is R-417A (61 per cent of sectoral refrigerant use in mt), followed by HFC-23 and R-507A (14 per cent each), R-404A (6 per cent), and the remaining 5 per cent uses R-438A, ammonia and carbon dioxide.

15. Commercial refrigeration, comprising approximately 1,000 large condensing systems and stand-alone units installed in commercial buildings, accounts for 7.32 per cent of total HFC use in Seychelles, in terms of CO₂-eq tonnage. R-507A is the most used refrigerant (48 per cent in mt), followed by R-404A (26 per cent), HFC-134a (10 per cent), R-600a (8 per cent) and R-410A (1 per cent).

16. The domestic refrigeration servicing subsector consumes only 0.54 per cent of all HFCs, although it has the largest number of equipment (estimated at 64,830 units) in use across the country, consisting mainly of refrigerators, chest freezers and portable cooling systems (water dispensers) for households, office buildings, restaurants, and supermarkets. The dominant refrigerant is HFC-134a (70 per cent of total sectoral refrigerant use in mt), followed by R-600a (28 per cent) and small quantities of R-290 (2 per cent).

17. Transport refrigeration in Seychelles refers to refrigerated cargo trucks. The subsector consumes 0.72 per cent (in CO₂-eq tonnes) of all HFCs. There are 47 active, registered trucks in the country, consuming mainly R-404A (98 per cent of refrigerant use in mt) and HFC-134a (2 per cent) for servicing. There is no use of alternatives with low global-warming potential (GWP) in this subsector.

Residential and commercial air-conditioning servicing

18. The residential AC sector in Seychelles consists mostly of single split units used in residential households and buildings, accounting for 23 per cent of total HFC use in the country in terms of CO₂-eq tonnage. The dominant refrigerant is R-410A (71 per cent of sectoral use in mt), followed by R-417A (16 per cent) and HFC-32 (13 per cent). Imports of HFC-32-based units are gradually increasing, and market studies indicate that demand for domestic AC equipment in the country will continue to grow.

19. The commercial AC sector consumes relatively small quantities of HFCs (5.97 per cent of all HFCs in CO₂-eq tonnes) and mainly uses R-410A (56 per cent of sectoral use in mt) and HFC-134a (30 per cent) for the servicing of multi-split, ducted split and rooftop units, AC chillers and centralized systems commonly used in commercial buildings, large office spaces, airports, malls, hospitals, large hotels and supermarkets. Small quantities of R-417A, R-407C and R-407A are also used in multi-split and ducted split units.

Mobile air-conditioning servicing

20. The country's MAC servicing sector refers to climate-control systems installed in cars, sport utility vehicles, commercial trucks and buses. HFC-134a dominates in this subsector (99 per cent in mt), with growing usage of R-1234yf (1 per cent), mostly found in newer imported hybrid and electric vehicles.

IV. Stage I of the Kigali HFC implementation plan as submitted

Institutional, policy and regulatory framework

21. The National Ozone Unit (NOU), under the Department of Climate Change of the Ministry of Agriculture, Climate Change and the Environment, is the lead coordination agency responsible for all aspects of the implementation of stage I of the KIP. The NOU is responsible for implementing Montreal Protocol-related programmes at the operational level, including the licensing and quota systems for imports and exports. The Review and Advisory Committee, comprised of key Government stakeholders, the private sector, and non-governmental organizations (NGOs), reviews and approves the NOU's work plans, progress reports, and annual HFC import quotas. Other institutions involved in the implementation of the KIP include *inter alia* the Seychelles Institute of Technology (SIT), the Revenue Commission (Customs Department), the Ministry of Finance, the Fire and Rescue Services Agency, the Licensing Authority, and the RAC technician association.

22. The Government of Seychelles amended the Environment Protection Act in 2016 to include the licensing system for HFCs as of 2021. Furthermore, an updated regulation has been prepared and is in the process of being approved, which includes the regulation to operationalize the HFC quota system (expected to be approved in 2025), mandatory reporting of imports by HFC importers, as well as HFC recovery and recycling during equipment maintenance. Venting of HFCs has been banned since 2000, and labelling requirements for HFC cylinders and containers have been in place since 2018.

23. The country has established voluntary minimum energy performance standards (MEPS) for AC and refrigeration equipment. The regulations on mandating MEPS and restricting imports of used equipment, as well as regulations on equipment using high-GWP refrigerants, are being developed as part of the country's HPMP. Following the ban on the imports of HCFC-based equipment in 2018, no HCFCs have been imported since 2019.

Phase-down strategy for stage I of the Kigali HFC implementation plan

Overarching strategy

24. The KIP for Seychelles is planned in four stages to achieve an 80 per cent reduction from the HFC consumption baseline by 2045. Stage I is planned to achieve a 10 per cent reduction by 2029 and aims to create an enabling environment for sustainable transition to low- and zero-GWP technologies by establishing a regulatory framework, building the capacity of technicians and enforcement agencies, and fostering stakeholder engagement. The staged approach accounts for the time needed for low-GWP technologies to become more accessible worldwide as well as in the country. Stage I of the KIP will be implemented simultaneously with the HPMP in a coordinated manner.

Proposed activities

25. Activities proposed to be implemented in stage I and their estimated costs are presented in table 7.

Table 7. Proposed activities and their costs for stage I of the KIP for Seychelles (as submitted)

Description of activities	Proposed cost (US \$)		
	UNEP	Germany	Total
<i>Legal and policy measures to support HFC phase-down</i>			
Introduce a charge for HFC-134a-based vehicles (HFO exempted) in the MAC sector; establish a ban on the imports and sales of HFC-23 by January 2027, and on the imports and sales of high-GWP (>3,000) HFCs/blends and related equipment in the firefighting, foam, aerosol and solvent sectors by January 2029	5,000		5,000

Description of activities	Proposed cost (US \$)		
	UNEP	Germany	Total
In collaboration with the Ministry of Trade, develop incentives to shift away from the use of HFC-134a in the MAC sector, including duty reductions, to encourage imports of vehicles with non-HFC-based AC systems	3,000		3,000
Develop cooling guidelines for architects, draftsmen and construction enterprises to adopt the best available low-GWP technologies and cooling practices		9,000	9,000
Subtotal	8,000	9,000	17,000
<i>Capacity building and training for technicians and enforcement officers</i>			
Develop and implement a targeted training programme for RAC technicians, customs and enforcement officers and other professionals, including updates to the training curriculum to include low-GWP refrigerants and technologies		10,000	10,000
Organize 4 training workshops for 80 customs officers and clearing agents on HFC control measures/legislation and HFC detection methods	16,000		16,000
Organize 4 training workshops, followed by certification, for 80 technicians in the RAC and MAC sectors on the safe installation, maintenance and disposal of equipment, and on the leak proofing, refrigerant containment and effective recovery of HFC-134a	8,000	8,000	16,000
Support the RAC technicians' association through provision of office facilities	20,000		20,000
Subtotal	44,000	18,000	62,000
<i>Demonstration project in the commercial refrigeration sector</i>			
Develop and implement a demonstration project on R-290 technology at a supermarket/cold store, including technician training and information dissemination		30,000	30,000
Subtotal		30,000	30,000
<i>HFC refrigerant recovery and sustainable management</i>			
Undertake a feasibility study to assess and reduce refrigerant leakage rates and energy use by commercial refrigeration equipment through the application of good refrigeration practices, safety measures and proper operating conditions; and hold a workshop for 20 stakeholders to communicate and validate study results	10,000		10,000
Procure equipment and tools for training on the installation, maintenance, and safe handling of low-GWP refrigerant systems and HFC reclaim systems, including 2 R-290-based AC units, 3 refrigerant recovery machines, 30 R-290 cylinders (5 kg capacity) and 50 empty cylinders (12 kg capacity)		15,000	15,000
Subtotal	10,000	15,000	25,000
<i>Project management and coordination</i>			
Project coordination, management, monitoring and reporting by the NOU (US \$18,000 for a consultant, US \$4,000 for meetings, and US \$2,000 for office expenses)	18,000	6,000	24,000
Subtotal	18,000	6,000	24,000
Total	80,000	78,000	158,000

Project implementation, coordination and monitoring

26. The coordination and management modalities of the HPMP will continue under the KIP. The NOU will be responsible for the implementation, coordination, monitoring and reporting of all activities, with support from UNEP. The proposed project management costs for stage I of the KIP, in the amount of US \$24,000, including US \$18,000 for UNEP and US \$6,000 for the Government of Germany, consist of US \$18,000 for staff and consultant, US \$4,000 for travel, and US \$2,000 for meetings.

Gender policy implementation

27. The Government of Seychelles has adopted a National Gender Policy to ensure that public policies and interventions are gender-sensitive and inclusive. In line with decisions 84/92(d), 90/48(c) and 92/40(b), as well as the gender mainstreaming policies of UNEP and the Government of Germany, stage I of the KIP will aim to promote gender equality and women's empowerment in all activities implemented by the project

team and consultants throughout the implementation period. A gender assessment will be conducted to identify areas of intervention through consultation of stakeholders (relevant government agencies, the private sector, NGOs, community-based organizations and women’s associations or groups) and to meaningfully integrate gender-specific indicators in the planning, implementation, and reporting processes, while focusing on ensuring gender balance, especially in training and capacity-building activities.

Coordination of activities in the servicing sector under HCFC phase-out and HFC phase-down plans

28. Seychelles will completely phase out HCFCs by 2025. The Government plans to implement the HPMP and stage I of the KIP simultaneously until completion of the HPMP to optimize overall impact. The way in which activities in stage I of the KIP are coordinated with those being carried out under the HPMP is presented in annex II to the present document.

Total cost of stage I of the Kigali HFC implementation plan

29. The cost for stage I has been proposed at US \$158,000 in line with decision 92/37. The proposed activities and cost of stage I of the KIP are summarized in table 7 above.

Implementation of the first tranche of stage I of the Kigali HFC implementation plan

30. The first funding tranche of stage I of the KIP, in the total amount of US \$81,000, will be implemented between June 2024 and December 2026 and will include activities summarized in table 8.

Table 8. Activities and costs of the first tranche of stage I of the KIP for Seychelles (as submitted)

Description of activities	Proposed cost (US \$)		
	UNEP	Germany	Total
<i>Legal and policy measures to support HFC phase-down</i>			
Introduce a charge for HFC-134a-based vehicles (HFO exempted) in the MAC sector; establish bans on the imports and sales of HFC-23 by January 2027, and on the imports and sales of high-GWP (>3,000) HFCs/blends and related equipment in the firefighting, foam, aerosol and solvent sectors by January 2029	5,000		5,000
In collaboration with the Ministry of Trade, develop incentives to shift away from the use of HFC-134a in the MAC sector, including duty reductions, to encourage imports of vehicles with non-HFC-based AC systems	3,000		3,000
Develop cooling guidelines for architects, draftsmen and construction enterprises to adopt the best available low-GWP technologies and cooling practices		9,000	9,000
Subtotal	8,000	9,000	17,000
<i>Capacity building and training for technicians and enforcement officers</i>			
Update the SIT training curricula for RAC technicians to include low-GWP technologies		10,000	10,000
Organize 4 training workshops for 80 customs officers and clearing agents on HFC control measures/legislation and HFC detection methods	8,000		8,000
Organize 4 training workshops, followed by certification, for 80 RAC and MAC technicians on the safe installation, maintenance and disposal of equipment, and on the leak proofing, refrigerant containment and effective recovery of HFC-134a		8,000	8,000
Support the RAC technicians’ association through provision of office facilities	16,000		16,000
Subtotal	24,000	18,000	42,000
<i>HFC refrigerant recovery and sustainable management</i>			
Undertake a feasibility study to assess and reduce refrigerant leakage rates and energy use by commercial refrigeration equipment through the application of good refrigeration practices, safety measures and proper operating conditions; and hold a workshop for 20 stakeholders to communicate and validate study results	10,000		10,000
Subtotal	10,000		10,000

Description of activities	Proposed cost (US \$)		
	UNEP	Germany	Total
<i>Project management and coordination</i>			
Project coordination, management, monitoring and reporting by the NOU (US \$9,000 for a consultant, US \$2,000 for meetings, and US \$1,000 for office expenses)	8,000	4,000	12,000
Subtotal	8,000	4,000	12,000
Total	50,000	31,000	81,000

SECRETARIAT’S COMMENTS AND RECOMMENDATION

V. Comments

Remaining activities under the HPMP

31. Seychelles is implementing a single-stage HPMP to completely phase out HCFCs by 2025. The country has not imported HCFCs since 2019. The main challenge encountered in maintaining zero HCFC imports consisted in identifying and preventing illegal imports of equipment with false labels. The Government will continue its efforts to control the imports of HCFCs and HCFC-based equipment and promote the adoption of alternatives. The remaining activities under the HPMP include ongoing training for refrigeration technicians in the safe handling of hydrocarbon refrigerants, training on “green” customs initiatives for law enforcement officers, as well as the purchase of equipment for the SIT to assist in the training on HCFC import controls.

Institutional, policy and regulatory framework

HFC licensing and quota system

32. The Secretariat noted that the updated regulation for operationalizing the quota system would only come into effect in 2025 and queried how the country would ensure compliance. UNEP clarified that the quota system for HFC imports was being enforced administratively, with quotas stipulated on each license issued to importers. A sample license was subsequently provided to the Secretariat, effectively indicating the maximum allowable import amount. The national quota for HFCs in 2024 has been determined in line with the Montreal Protocol control targets.

Technical and cost-related issues

33. The Secretariat noted that the country’s HFC consumption baseline included the HFCs used for charging foreign-flagged fishing vessels registered in Seychelles and queried how this consumption would be managed in future quota distribution. UNEP clarified that quotas for this consumption would be allocated starting from 2025. If the HFCs used for charging foreign-flagged fishing vessels exceed the quota, this additional demand will need to be met by the vessels’ mother countries.

34. Regarding the demonstration project for the adoption of R-290 technology at a commercial refrigeration end user, it includes activities to support the scaling up of the demonstrated technology in line with decision 92/36. In addition to tax subsidies aiming to create incentives for importers and suppliers to opt for alternatives, training for technicians will be organized at the beneficiary enterprise in collaboration with the SIT. The results of the demonstration project will be disseminated to relevant stakeholders and decision makers. Although the actual project cost and co-funding levels are unknown at present, the beneficiary enterprise is expected to cover a major portion of the costs. UNEP will submit a detailed report on the results of the project once it has been completed in line with decision 92/36(g).

35. The Secretariat enquired about the expected outcomes of the feasibility study to assess refrigerant leakage rates and energy use in the commercial refrigeration sector. UNEP explained that the study intended to comprehensively assess AC and refrigeration installations in the country, analyze maintenance records, establish actual leakage rates for major cooling installations, and collect data and information for the development of cooling guidelines for architects and construction enterprises, and that a workshop would be organized to present and validate the findings and recommendations of the study.

Tranche distribution and cost adjustments

36. The Secretariat noted that the funding as submitted for stage I of the KIP was frontloaded, with 87 per cent of the funds requested for the 2024—2026 period. UNEP highlighted the limited level of funding for stage I and the need to control HFC consumption to achieve compliance, as consumption in 2022 had already exceeded the baseline level. Upon consultation with UNEP and taking into consideration decision 93/105(b), it was agreed that stage I of the KIP would be implemented in two tranches, scheduled in 2024 and 2027 to allow for the proper planning and distribution of tranches.

37. Upon adjustment of the tranche distribution, the activities have been optimized as follows: the development of the cooling guidelines was transferred from the Government of Germany to UNEP, and of the US \$24,000 initially proposed for project implementation and monitoring, US \$5,000 was reallocated to the demonstration project and US \$3,200 to the feasibility study on leakage rates and energy use, as reflected in table 9 below. The schedule of HFC phase-down and HCFC phase-out commitments and of the KIP and the remaining HPMP tranches is presented in annex I to the present document. The more detailed presentation of planned activities and their costs as agreed can be found in table 9.

Table 9. Proposed activities and their costs for stage I of the KIP for Seychelles (as agreed)

Activities	Proposed cost (US \$)		
	UNEP	Germany	Total
<i>Legal and policy measures to support HFC phase-down</i>			
Revise levy and introduce a charge for HFC-134a-based vehicles (HFO exempted) in the MAC sector; establish a ban on the imports and sales of HFC-23 by January 2027, and on the imports and sales of high-GWP (>3,000) HFCs/blends and related equipment in the firefighting, foam, aerosol and solvent sectors by January 2029	5,000	0	5,000
In collaboration with the Ministry of Trade, develop incentives to shift away from the use of HFC-134a in the MAC sector, including duty reductions	3,000	0	3,000
Develop cooling guidelines for architects, draftsmen and construction enterprises to adopt the best available low-GWP technologies and cooling practices, followed by a stakeholder engagement workshop for 40 participants (by 2025)	9,000	0	9,000
Subtotal	17,000	0	17,000
<i>Capacity building and training for technicians and enforcement officers</i>			
Update the SIT training curricula for RAC technicians to include low-GWP technologies		10,000	10,000
Organize 4 gender-inclusive training workshops for 80 customs officers and clearing agents on HFC control measures/legislation and HFC detection methods	16,000	0	16,000
Organize 4 gender-inclusive training workshops for 80 RAC and MAC technicians, followed by certification, on the safe installation, maintenance and disposal of equipment, leak proofing, refrigerant containment and effective recovery of HFC-134a	8,000	8,000	16,000
Support the RAC technicians' association through provision of office facilities	20,000		20,000
Subtotal	44,000	18,000	62,000

Activities	Proposed cost (US \$)		
	UNEP	Germany	Total
<i>Demonstration project in the commercial refrigeration sector</i>			
Develop and implement a demonstration project on R-290 technology at a supermarket/cold store, including technician training and information dissemination	0	35,000	35,000
Subtotal	0	35,000	35,000
<i>HFC refrigerant recovery and sustainable management</i>			
Undertake a feasibility study to assess and reduce refrigerant leakage rates and energy use by commercial refrigeration equipment through the application of good refrigeration practices, safety measures and proper operating conditions; and hold a workshop for 20 stakeholders to communicate and validate study	13,200		13,200
Procure equipment and tools for training on the installation, maintenance, and safe handling of low-GWP refrigerant systems and HFC reclaim systems, including 2 R-290-based AC units, 3 refrigerant recovery machines, 30 R-290 cylinders (5 kg capacity) and 50 empty cylinders (12 kg capacity)		15,000	15,000
Subtotal	13,200	15,000	28,200
<i>Project management and coordination</i>			
Project coordination, management, monitoring and reporting by the NOU (US \$11,850 for a consultant, US \$2,630 for meetings, and US \$1,320 for office expenses)	11,060	4,740	15,800
Subtotal	11,060	4,740	15,800
Total	85,260	72,740	158,000

38. The activities planned for implementation in the first tranche of stage I, as agreed, are presented in table 10.

Table 10. Proposed activities and their costs in the first tranche of stage I of the KIP (as agreed)

Planned activities	Proposed cost (US \$)		
	UNEP	Germany	Total
<i>Legal and policy measures to support HFC phase-down</i>			
Revise levy and introduce a charge for HFC-134a-based vehicles (HFO exempted) in the MAC sector; establish a ban on the imports and sales of HFC-23 by January 2027, and on the imports and sales of high-GWP (>3,000) HFCs/blends and related equipment in the firefighting, foam, aerosol and solvent sectors by January 2029	5,000	0	5,000
In collaboration with the Ministry of Trade, develop incentives to shift away from the use of HFC-134a in the MAC sector, including duty reductions	3,000	0	3,000
Develop cooling guidelines for architects, draftsmen and construction enterprises to adopt the best available low-GWP technologies and cooling practices, followed by a stakeholder engagement workshop for 40 participants (by 2025)	9,000	0	9,000
Subtotal	17,000	0	17,000
<i>Capacity building and training for technicians and enforcement officers</i>			
Update the SIT training curriculum to include low-GWP technologies	0	10,000	10,000
Organize 2 gender-inclusive training workshops for 40 customs officers and clearing agents on HFC control measures/legislation and HFC detection methods	8,000	00	8,000
Organize 2 gender-inclusive training workshops for 40 RAC and MAC technicians, followed by certification, on the safe installation, maintenance and disposal of equipment, leak proofing, refrigerant containment and effective recovery of HFC-134a	4,000	4,000	8,000

Planned activities	Proposed cost (US \$)		
	UNEP	Germany	Total
Support the RAC technicians' association by through provision of office facilities	16,000	0	16,000
Subtotal	28,000	14,000	42,000
<i>HFC refrigerant recovery and sustainable management</i>			
Undertake a feasibility study to assess and reduce refrigerant leakage rates and energy use by commercial refrigeration equipment through the application of good refrigeration practices, safety measures and proper operating conditions; and hold a workshop for 20 stakeholders to communicate and validate study results	13,200		13,200
Subtotal	13,200	0	13,200
<i>Project management and coordination</i>			
Project coordination, management, monitoring and reporting by the NOU (US \$7,110 for a consultant, US \$1,580 for meetings, and US \$790 for office expenses)	6,636	2,844	9,480
Subtotal	6,636	2,844	9,480
Total	64,836	16,844	81,680

Co-financing

39. The co-financing measures for the KIP for Seychelles involve in-kind contribution of the beneficiary enterprise to the R-290 demonstration project, and awareness-raising on the KIP implementation being disseminated via the existing websites, social media platforms, forums and newsletters of both the Government and private stakeholders. Additionally, the NOU will present KIP activities at relevant forums, both public and private, across the country, thus reducing advertising costs.

2024–2026 business plan of the Multilateral Fund

40. UNEP and the Government of Germany are requesting US \$158,000, plus agency support costs, for the implementation of stage I of the KIP for Seychelles. The total value of US \$92,299, including agency support costs, requested for the period of 2024–2026, is US \$16,477 below the amount in the business plan.

Sustainability of the HFC phase-down and assessment of risks

41. There are several areas where potential risks to the successful implementation of the KIP and the compliance of the country with the Montreal Protocol targets have been identified. Most importantly, the regulation on the HFC quota system is expected to become effective only in 2025, posing a risk to compliance. To mitigate this risk, the Government has established and begun enforcing an administrative procedure to control the imports of HFCs in 2024, in addition to carrying out training and awareness-raising activities for importers.

42. To ensure the sustainability of HFC phase-down and assist the market transition to low-GWP technologies, stage I of the KIP includes regulatory measures to ban the imports and sales of HFC-23 by January 2027, and of high-GWP (>3,000) HFCs/blends in the firefighting, foam, aerosol and solvent sectors by January 2029. Awareness-raising activities for importers and tax policies aimed at limiting imports of HFC-based equipment and promoting the introduction of low-GWP technologies have been planned to ameliorate the supply chain for low-GWP technologies. Demonstration projects have also been planned to assist in technology uptake and to build the capacity of technicians in the commercial refrigeration sector.

Impact on the climate

43. The activities proposed, including regulatory measures to restrict the use of high-GWP refrigerants, the training of technicians in good servicing practices and refrigerant recovery and reuse, and efforts to

promote low-GWP alternatives, indicate that the implementation of stage I of the KIP will reduce HFC emissions into the atmosphere, resulting in climate benefits. While the Secretariat is not able to provide an estimate of the overall climate benefits of the KIP at the present meeting,³ by 2029 Seychelles will have reduced the country's annual emissions by approximately 24,940 CO₂-eq tonnes of HFCs, calculated as the difference between the HFC baseline for compliance and the 2029 target, assuming that all HFCs consumed will be eventually emitted.

Draft Agreement

44. A draft Agreement between the Government of Seychelles and the Executive Committee for stage I of the KIP has not been prepared, as the Agreement template is still under consideration by the Executive Committee.

45. If the Executive Committee so wishes, the funds for stage I of the KIP for Seychelles could be approved in principle, and funds for the first tranche could be approved on the understanding that the Agreement would be prepared and presented at a future meeting, before the submission of the second tranche, and once the Agreement template has been approved.

VI. Recommendation

46. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the Kigali HFC implementation plan (KIP) for Seychelles for the period 2024–2029 to reduce HFC consumption by 10 per cent of the country's baseline by 2029, in the amount of US \$178,540, consisting of US \$85,260, plus agency support costs of US \$11,084, for UNEP and US \$72,740, plus agency support costs of US \$9,456, for the Government of Germany, as reflected in the schedule contained in annex I to the present document;
- (b) Noting that the Government plans to establish the following regulatory measures:
 - (i) Ban on the imports and sales of HFC-23 by 1 January 2027;
 - (ii) Ban on the imports and sales of HFCs and HFC blends with a global-warming potential above 3,000 in the fire suppression, foam, aerosol and solvent sectors by January 2029;
- (c) Further noting that, upon completion of the end-user project included in stage I of the KIP, the Government of Germany will submit a final report on the implementation of the project, including the HFC phase-out and energy-efficiency gains achieved, in line with decision 92/36(g);
- (d) Approving the first tranche of stage I of the KIP for Seychelles and the corresponding tranche implementation plan, in the amount of US \$92,299, consisting of US \$64,836, plus agency support costs of US \$8,429, for UNEP and US \$16,844, plus agency support costs of US \$2,190, for the Government of Germany; and
- (e) Requesting the Government of Seychelles, UNEP, the Government of Germany and the Secretariat to finalize the draft Agreement between the Government of Seychelles and the

³ As noted in document 94/14, Overview of issues identified during project review, the Secretariat was in the process of developing a methodology to estimate the avoided emissions from the implementation of HFC phase-down projects supported by the Multilateral Fund.

Executive Committee for the reduction in consumption of HFCs, including the information contained in the annex referred to in subparagraph (a) above, and to submit it to a future meeting once the KIP Agreement template has been approved by the Executive Committee.

Annex I

**SCHEDULE OF HFC PHASE-DOWN AND HCFC PHASE-OUT COMMITMENTS AND FUNDING TRANCHES
UNDER THE KIGALI HFC IMPLEMENTATION PLAN AND THE HCFC PHASE-OUT MANAGEMENT PLAN FOR SEYCHELLES**

Kigali HFC implementation plan (stage I)

Row	Particulars	2024	2025	2026	2027	2028	2029	Total
1.1	Montreal Protocol reduction schedule of Annex F substances (CO ₂ -eq tonnes)	249,400	249,400	249,400	249,400	249,400	224,460	n/a
1.2	Maximum allowable total consumption of Annex F substances (CO ₂ -eq tonnes)	249,400	249,400	249,400	249,400	249,400	224,460	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	64,836	0	0	20,424	0	0	85,260
2.2	Support costs for Lead IA (US \$)	8,429	0	0	2,655	0	0	11,084
2.3	Cooperating IA (Germany) agreed funding (US \$)	16,844	0	0	55,896	0	0	72,740
2.4	Support costs for Cooperating IA (US \$)	2,190	0	0	7,266	0	0	9,456
3.1	Total agreed funding (US \$)	81,680	0	0	76,320	0	0	158,000
3.2	Total support costs (US \$)	10,619	0	0	9,921	0	0	20,540
3.3	Total agreed costs (US \$)	92,299	0	0	86,241	0	0	178,540

HCFC phase-out management plan (stage I) (only remaining tranches)

Row	Particulars	2024	2025	Total
1.1	Montreal Protocol reduction schedule Xof Annex C, Group I substances (ODP tonnes)	0.91	0.46	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	0.30	0.00	n/a
2.1	Lead IA (Germany) agreed funding (US \$)	0	60,000	60,000
2.2	Support costs for Lead IA (US \$)	0	7,600	7,600
3.1	Total agreed funding (US \$)	0	60,000	60,000
3.2	Total support cost (US \$)	0	7,600	7,600
3.3	Total agreed costs (US \$)	0	67,600	67,600

Annex II

**SIMULTANEOUS IMPLEMENTATION OF THE HCFC PHASE-OUT MANAGEMENT PLAN
AND THE KIGALI HFC IMPLEMENTATION PLAN IN SEYCHELLES**

Category of activity	HPMP – stage I		KIP – stage I		Combined cost (US \$)
	Activity	Cost (US \$)	Activity	Cost (US \$)	
Establishment of a regulatory environment	Enforcement of regulations and customs training	66,000	Development of fiscal incentives for the MAC sector; bans on HFC-23 and on the high-GWP HFCs in the firefighting, foam, aerosol and solvent sectors	8,000	74,000
	Testing of equipment	25,000	Development of cooling guidelines for architects, draftsmen and construction enterprises	9,000	34,000
Subtotal		91,000		17,000	108,000
Training, technical assistance and awareness building	Awareness raising, education and outreach programme	35,000	Updates to training curricula for RAC technicians	10,000	45,000
	Training of trainers and technicians	184,000	Training and certification of 80 RAC and MAC technicians	16,000	200,000
	Equipment for training centres	45,000	Training of 80 customs officers and clearing agents	16,000	61,000
			Support to the RAC technicians' association	20,000	20,000
Subtotal		264,000		62,000	326,000
Demonstration projects in commercial refrigeration	Demonstration project for ozone climate benefit	165,000	Demonstration project on the use of R-290 at a supermarket	35,000	200,000
Subtotal		165,000		35,000	200,000
Capacity building for refrigerant recovery and sustainable practices			Feasibility study on leakage rates and energy use	13,200	13,200
			Training equipment and tools for the installation, maintenance and safety of low-GWP refrigerant-based systems and HFC reclaim	15,000	15,000
Subtotal				28,200	28,200
Project management	Project management	80,000	Project management and support to the NOU	15,800	95,800
Subtotal		80,000		15,800	95,800
TOTAL		600,000		158,000	758,000
Percentage of total (%)		79		21	100