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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-fifth Meeting
Montreal, 16-20 November 2015

PROJECT PROPOSAL: SEYCHELLES

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

Phase-out

- HCFC phase-out management plan (third tranche) Germany

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Seychelles

| (I) PROJECT TITLE | AGENCY | MEETING APPROVED | CONTROL MEASURE |
|---------------------|----------------|------------------|-----------------|
| HCFC phase out plan | Germany (lead) | 63 rd | 100% by 2025 |

| (II) LATEST ARTICLE 7 DATA (Annex C Group I) | Year: 2014 | 0.43 (ODP tonnes) |
|--|------------|-------------------|
|--|------------|-------------------|

| (III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes) | | | | | | | | Year: 2014 | |
|---|---------|------|---------------|---------------|-----------|---------|---------------|------------|--------------------------|
| Chemical | Aerosol | Foam | Fire fighting | Refrigeration | | Solvent | Process agent | Lab use | Total sector consumption |
| | | | | Manufacturing | Servicing | | | | |
| HCFC-22 | | | | | 0.43 | | | | 0.43 |

| (IV) CONSUMPTION DATA (ODP tonnes) | | | |
|---|-----|--|-----|
| 2009 - 2010 baseline: | 1.4 | Starting point for sustained aggregate reductions: | 1.4 |
| CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes) | | | |
| Already approved: | 1.4 | Remaining: | 0 |

| (V) BUSINESS PLAN | | 2015 | Total |
|-------------------|----------------------------|---------|---------|
| Germany | ODS phase-out (ODP tonnes) | 0.4 | 0.4 |
| | Funding (US \$) | 202,800 | 202,800 |

| (VI) PROJECT DATA | | | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020-2024 | 2025 | Total |
|--|---------|---------------|---------|------|---------|------|---------|------|------|------|------|-----------|--------|---------|
| Montreal Protocol consumption limits | | | n/a | n/a | 1.4 | 1.4 | 1.26 | 1.26 | 1.26 | 1.26 | 1.26 | 0.91 | 0.46 | n/a |
| Maximum allowable consumption (ODP tonnes) | | | 1.25 | 1.25 | 0.94 | 0.70 | 0.53 | 0.40 | 0.30 | 0.30 | 0.30 | 0.30 | 0.0 | n/a |
| Agreed funding (US \$) | Germany | Project costs | 200,000 | 0 | 160,000 | 0 | 180,000 | 0 | 0 | 0 | 0 | 0 | 60,000 | 600,000 |
| | | Support costs | 25,333 | 0 | 20,267 | 0 | 22,800 | 0 | 0 | 0 | 0 | 0 | 0 | 7,600 |
| Funds approved by ExCom (US \$) | | Project costs | 200,000 | 0 | 160,000 | 0 | 0 | | | | | | | 360,000 |
| | | Support costs | 25,333 | 0 | 20,267 | 0 | 0 | | | | | | | 45,600 |
| Total funds requested for approval at this meeting (US \$) | | Project costs | 0 | 0 | 0 | 0 | 180,000 | | | | | | | 180,000 |
| | | Support costs | 0 | 0 | 0 | 0 | 22,800 | | | | | | | 22,800 |

| | |
|--------------------------------------|----------------------|
| Secretariat's recommendation: | For blanket approval |
|--------------------------------------|----------------------|

PROJECT DESCRIPTION

1. On behalf of the Government of Seychelles, the Government of Germany as the designated implementing agency, has submitted to the 75th meeting a request for funding for the third tranche of the HCFC phase-out management plan (HPMP), at the amount of US \$180,000, plus agency support costs of US \$22,800. The submission includes a progress report on the implementation of the second tranche and the tranche implementation plan for 2015 to 2025.

Report on HCFC consumption

HCFC consumption

2. The Government of Seychelles reported a consumption of 0.43 ODP tonnes of HCFC in 2014. The 2010-2014 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Seychelles (2010-2014 Article 7 data)

| HCFC | 2010 | 2011 | 2012* | 2013 | 2014 | Baseline |
|------------------------------|-------------|-------------|-------------|--------------|-------------|-------------|
| Metric tonnes | | | | | | |
| HCFC-22 | 24.0 | 16.6 | 18.3 | 10.09 | 7.83 | 24.7 |
| HCFC-141b | 0.0 | 0.15 | 0.00 | 0.00 | 0.00 | 0.2 |
| Total (metric tonnes) | 24.0 | 16.7 | 18.3 | 10.09 | 7.83 | 24.9 |
| ODP tonnes | | | | | | |
| HCFC-22 | 1.3 | 0.93 | 1.01 | 0.55 | 0.43 | 1.4 |
| HCFC-141b | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| Total (ODP tonnes) | 1.3 | 0.93 | 1.01 | 0.55 | 0.43 | 1.4 |

*The consumption reported for 2012 under the Article 7 has excluded the consumption for servicing foreign ships. From 2013 onwards, this consumption has been included in the domestic consumption.

3. The consumption in 2012 was because of stockpiling and the excess amount used for servicing foreign ships. The HCFC consumption in 2013 and 2014 has decreased due to the enforcing of quotas, the implementation of the HPMP, the majority of the five-star hotels have retrofitted their air-conditioning (AC) equipment to alternatives, and no foreign ships are being recharged in Seychelles unless it is for emergency servicing.

Country programme (CP) implementation report

4. The Government of Seychelles reported HCFC sector consumption data under the 2014 CP implementation report which is consistent with the data reported under Article 7.

Progress report on the implementation of the second tranche of the HPMP

Legal framework

5. The Government of Seychelles issued the environmental protection act in 2010 to support HCFC phase-out. The regulation sets out procedures and conditions for controlling the import/export and sale of HCFCs. Seychelles has been enforcing its licensing system since September 2010 and a quota system since 2012 to control HCFC imports. A ban on HCFC-141b has been in place since 2010. The ban on imports of HCFC equipment has been planned for 2018.

6. All importers must apply for a permit with a quota in order to import HCFCs. The national ozone unit (NOU) determines the quota according to the maximum allowable consumption and distributes it among importers. The import office of the Ministry of Finance issues the permit according to the quota distribution established by the NOU. The Customs authority verifies the quota at the ports of entry.

Refrigeration servicing sector

7. During the second tranche, the following activities have been undertaken:
- (a) Two green customs training sessions were conducted for 32 customs/law officers. The use of identifiers and safety issues linked to handling the flammable refrigerant were demonstrated to the officers;
 - (b) Training in good servicing practices and the safe handling of natural refrigerants was conducted for 35 participants including trainers from the Seychelles Institute of Technology (SIT), which is the training center for technicians;
 - (c) One trainer was trained in Germany in the use of natural refrigerants including CO₂, hydrocarbon (HC) and ammonia in domestic and commercial equipment. The trainer subsequently conducted two training courses for 37 technicians;
 - (d) A compulsory technician certification programme was implemented to ensure that technicians handling refrigerants are adequately trained to work with those refrigerants;
 - (e) Procurement of equipment has been completed for the demonstration of AC equipment using HC-290 and solar panels, equipment delivery is expected at the end of 2015; and
 - (f) Awareness-raising activities to inform the industry on accelerated HCFC phase-out and the phase-down of HFCs were carried out.

Project implementation and monitoring unit (PMU)

8. Monitoring and coordination of activities planned in the HPMP were conducted by the NOU to ensure efficient implementation. A consultant was employed to carrying out field visits and collect information.

Level of fund disbursement

9. As of September 2015, of the US \$360,000 so far approved, US \$337,868 had been disbursed. The balance of US \$22,132 will be disbursed in 2016 (Table 2).

Table 2. Financial report of stage I of the HPMP for Seychelles (US \$)

| Agency | First tranche | | Second tranche | | Total approved | |
|------------------------------|---------------|-----------|----------------|-----------|----------------|-----------|
| | Approved | Disbursed | Approved | Disbursed | Approved | Disbursed |
| Germany | 200,000 | 200,000 | 160,000 | 137,868 | 360,000 | 337,868 |
| Disbursement rate (%) | 100.0 | | 86.2 | | 93.9 | |

Implementation plan for the third tranche of the HPMP

10. The third funding tranche of the HPMP will be implemented between November 2015 and November 2024, and the following activities will be undertaken:
- (a) Conducting five training courses for 50 customs officers in the identification of new refrigerants and the prevention of illegal trade (US \$15,000);
 - (b) Provision of equipment for the identification of new refrigerants and blends (US \$10,000);

- (c) Conducting five training courses for 125 technicians in good servicing practice, safe handling and use of natural refrigerants (US \$20,000);
- (d) Provision of tools and equipment to technicians and training institute for refrigerant recovery and reuse, conversion to HCs, and updating the training center (US \$80,000);
- (e) Continuing the demonstration project for air-conditioning using HC-290 and solar energy (US \$15,000);
- (f) Conducting two stakeholder workshops and public awareness-raising activities to promote the use of HC-290 (US \$27,000); and
- (g) Project monitoring and coordination (US \$35,132 including US \$22,132 from previous tranche).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption

11. The Secretariat inquired about the methodology for reporting HCFC consumption currently used by Seychelles in the context of decision 70/19¹ of the Executive Committee. It was clarified that from 2013 onwards the consumption of HCFC-22 for servicing ships has been included in domestic consumption. The Government has established a new policy that only domestic ships will be charged in Seychelles. Foreign-owned ships have been informed that servicing their HCFC-based equipment cannot be done in Seychelles due to the limited HCFC imports, which are necessary to meet the domestic needs. The import licensing and quota system for HCFCs is being strictly enforced and 15 per cent of the total national quota is assigned to the shipping industry.

12. The Secretariat noted that, while a funding request has been submitted to the 75th meeting for consumption verification, the verification had not been conducted for 2013 and 2014. Given the importance of verifying the methodology for reporting HCFC consumption, it was agreed with the Government of Seychelles that the verification of 2013 and 2014 consumption will be conducted immediately after the funding is approved at the 75th meeting and the verification report will be submitted to the Secretariat prior to the 76th meeting. The Secretariat will report to the Executive Committee on the result of the verification.

Progress report on the implementation of the second tranche of the HPMP

Legal framework

13. The Government of Seychelles has already issued HCFC import quotas for 2015 at 4.3 metric tonnes (0.24 ODP tonnes).

¹ The Executive Committee recognized that the Government of Seychelles had established a quota system to control the import and export of HCFCs, had committed to meeting the targets in its Agreement with the Executive Committee, and would include the consumption of ODS used for servicing foreign-owned ships in its domestic consumption in its annual report under Article 7 of the Montreal Protocol.

Refrigeration servicing sector

14. Noting that the country's strategy for accelerated phase-out is to convert HCFC-22-based ACs to HC-290, the Secretariat reiterated decisions 72/17², 72/41³ and 73/34⁴ on retrofitting to HC and safety-related issues. The Secretariat was informed that the Government of Seychelles was fully aware of the decisions and had taken several steps to ensure that safety issues were adequately addressed. The existing environmental protection act covers the handling of hazardous chemicals. A new draft of the regulation is being developed to include the use of HC refrigerants, whereby most likely the European Union standards will be adopted. Technicians undertaking the conversions have been trained in the use and safe handling of HC and are certified for conducting conversions. They also received a disclaimer specifying that all conversion to HC is conducted under the sole responsibility of the technician. The process of conversion is monitored by a consultant employed by the NOU to ensure that safety standards and procedures are followed. The converted ACs are properly labeled highlighting fire hazard, the type of refrigerant and charge quantity. The end-users have been informed of the safety risk and responsibilities for ensuring proper servicing of the converted appliances. So far, the conversion has been restricted to small domestic split-AC units with a charge lower than 300 grams for demonstration. The large-scale conversion activities will only be conducted after 2018, when the ban on the imports of HCFC-based equipment is promulgated.

15. With respect to the infrastructure for supply of refrigerant grade HC to the country, it was reported that the NOU has purchased a small quantity of HC-refrigerant grade for training and demonstration purposes. Local importers are bringing in small cans of HC-600a and HC-290. The import duty is exempted for HCs in order to promote its use.

16. With respect to the sustainability of training of technicians, Seychelles has put in place a certification and licensing process for technicians. The training institute SIT has been supported with equipment and trained trainers, and will conduct the training courses for technicians under the certification programme. For customs training, the green customs initiative conducts yearly training for officers and the training curriculum will be reviewed regularly to integrate new issues related to HCFC phase-out, which will ensure sustainability of the customs training.

Conclusion

17. The implementation of the HPMP of Seychelles is progressing. The licensing and quota system is being effectively enforced and a ban on HCFC-based equipment has been planned for 2018. The Government of Seychelles has met the targets for accelerated phase-out set in the Agreement. Training courses were conducted for technicians and customs officers. On-going training for technicians has been integrated into the professional training institute's curriculum to ensure the sustainability of capacity development. The demonstration project for the use of HC is to be completed in 2016. Awareness-raising activities have generated a significant impact on the industry and end-users to convert to HC. In view of

² If the country engages in retrofitting HCFC-based refrigeration and air-conditioning equipment to flammable or toxic refrigerants and associated servicing, it does so on the understanding that they assume all associated responsibilities and risks.

³ Article 5 countries were encouraged when implementing their HPMPs, to consider, as needed and feasible: (i) The development of regulations and codes of practice, and the adoption of standards for the safe introduction of flammable and toxic refrigerants given the potential risk of accidents and negative effects on health associated with their use; (ii) Measures to limit the import of HCFC-based equipment and to facilitate the introduction of energy-efficient and climate-friendly alternatives; and (iii) Focusing activities in the refrigeration servicing sector on training of technicians, good practices, the safe handling of refrigerants, containment, recovery and recycling and reuse of recovered refrigerants rather than retrofitting.

⁴ If a country were to decide, after taking into account decision 72/17, to proceed with retrofits that used flammable substances in equipment originally designed for non-flammable substances, it should be done only in accordance with the relevant standards and protocols.

the progress achieved and the funding disbursement of 86 per cent, the Secretariat recommends approval of the third tranche. The Government of Seychelles will submit a verification report of 2013 and 2014 consumption eight weeks prior to the 76th meeting.

RECOMMENDATION

18. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the third tranche of the HCFC phase-out management plan of (HPMP) in Seychelles.

19. The Fund Secretariat further recommends blanket approval of the third tranche of the HPMP for Seychelles, and the corresponding 2015-2025 tranche implementation plan, at the funding level shown in the table below, on the understanding that verification report on HCFC consumption for 2013 and 2014 would be submitted to the 76th meeting; and if Seychelles were to decide to proceed with retrofits and associated servicing to flammable and toxic refrigerants in refrigeration and air-conditioning equipment originally designed for non-flammable substances, it would do so assuming all associated responsibilities and risks and only in accordance with the relevant standards and protocols:

| | Project title | Project funding (US \$) | Support cost (US \$) | Implementing agency |
|-----|--|------------------------------------|---------------------------------|--------------------------------|
| (a) | HCFC phase-out management plan (third tranche) | 180,000 | 22,800 | Germany |