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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-fourth Meeting
Montreal, 18-22 May 2015

PROJECT PROPOSAL: NICARAGUA

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

Phase-out

- HCFC phase-out management plan (stage I, second tranche) UNEP and UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Nicaragua

| (I) PROJECT TITLE | AGENCY | MEETING APPROVED | CONTROL MEASURE |
|-------------------------------|--------------------|------------------|---------------------|
| HCFC phase out plan (Stage I) | UNEP (lead), UNIDO | 66 th | 35 per cent by 2020 |

| | | |
|---|------------|-------------------|
| (II) LATEST ARTICLE 7 DATA (Annex C Group I) | Year: 2013 | 3.56 (ODP tonnes) |
|---|------------|-------------------|

| (III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes) | | | | | | | | Year: 2013 | |
|---|---------|------|---------------|---------------|-----------|---------|---------------|------------|--------------------------|
| Chemical | Aerosol | Foam | Fire fighting | Refrigeration | | Solvent | Process agent | Lab use | Total sector consumption |
| | | | | Manufacturing | Servicing | | | | |
| HCFC-123 | | | | | | | | | |
| HCFC-124 | | | | | 0.04 | | | | 0.04 |
| HCFC-141b | | | | | 0.56 | | | | 0.56 |
| HCFC-141b in Imported Pre-blended Polyol | | 0.02 | | | | | | | 0.02 |
| HCFC-142b | | | | | | | | | |
| HCFC-22 | | | | | 2.96 | | | | 2.96 |

| (IV) CONSUMPTION DATA (ODP tonnes) | | | |
|---|------|--|------|
| 2009 - 2010 baseline: | 6.8 | Starting point for sustained aggregate reductions: | 7.11 |
| CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes) | | | |
| Already approved: | 2.69 | Remaining: | 4.42 |

| (V) BUSINESS PLAN | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|-------------------|----------------------------|--------|------|------|--------|------|--------|---------|
| UNEP | ODS phase-out (ODP tonnes) | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 | 0.6 |
| | Funding (US \$) | 33,900 | 0 | 0 | 33,900 | 0 | 11,300 | 79,100 |
| UNIDO | ODS phase-out (ODP tonnes) | 0.4 | 0.0 | 0.0 | 0.4 | 0.0 | 0.2 | 1.0 |
| | Funding (US \$) | 54,500 | 0 | 0 | 54,500 | 0 | 27,795 | 136,795 |

| (VI) PROJECT DATA | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|---|-------|---------------|---------|------|------|--------|------|------|--------|------|--------|---------|
| Montreal Protocol consumption limits | | | n/a | 6.80 | 6.80 | 6.12 | 6.12 | 6.12 | 6.12 | 6.12 | 4.42 | n/a |
| Maximum allowable consumption (ODP tonnes) | | | n/a | 6.80 | 6.80 | 6.12 | 6.12 | 6.12 | 6.12 | 6.12 | 4.42 | n/a |
| Agreed funding (US\$) | UNEP | Project costs | 38,000 | 0 | 0 | 30,000 | 0 | 0 | 30,000 | 0 | 10,000 | 108,000 |
| | | Support costs | 4,940 | 0 | 0 | 3,900 | 0 | 0 | 3,900 | 0 | 1,300 | 14,040 |
| | UNIDO | Project costs | 96,500 | 0 | 0 | 50,000 | 0 | 0 | 50,000 | 0 | 25,500 | 222,000 |
| | | Support costs | 8,685 | 0 | 0 | 4,500 | 0 | 0 | 4,500 | 0 | 2,295 | 19,980 |
| Funds approved by ExCom (US\$) | | Project costs | 134,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134,500 |
| | | Support costs | 13,625 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,625 |
| Total funds requested for approval at this meeting (US\$) | | Project costs | 0 | 0 | 0 | 80,000 | 0 | 0 | 0 | 0 | 0 | 80,000 |
| | | Support costs | 0 | 0 | 0 | 8,400 | 0 | 0 | 0 | 0 | 0 | 8,400 |

| | |
|--------------------------------------|------------------|
| Secretariat's recommendation: | Blanket approval |
|--------------------------------------|------------------|

PROJECT DESCRIPTION

1. On behalf of the Government of Nicaragua, UNEP as the lead implementing agency, has submitted to the 74th meeting a request for funding for the second tranche of stage I of the HCFC phase-out management plan (HPMP), at a total cost of US \$88,400, consisting of US \$30,000, plus agency support costs of US \$3,900 for UNEP, and US \$50,000, plus agency support costs of US \$4,500 for UNIDO. The submission includes a progress report on the implementation of the first tranche and the tranche implementation plan for 2015 to 2017.

Report on HCFC consumption

HCFC consumption

2. The Government of Nicaragua reported a consumption of 3.56 ODP tonnes of HCFC in 2013 and an estimated consumption of 5.18 ODP tonnes for 2014. The 2010-2014 HCFC consumption is shown in Table 1.

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

| HCFC | 2010 | 2011 | 2012 | 2013 | 2014* | Baseline |
|---|--------------|--------------|---------------|--------------|--------------|---------------|
| Metric tonnes | | | | | | |
| HCFC-22 | 119.7 | 81.06 | 183.95 | 53.86 | 76.93 | 111.18 |
| HCFC-123 | 0.8 | 0 | 0 | 0 | 0.00 | 0.49 |
| HCFC-124 | 2.3 | 2.74 | 3.27 | 1.61 | 3.31 | 1.36 |
| HCFC-141b | 8.0 | 8.06 | 15.32 | 5.12 | 7.97 | 5.36 |
| Total (mt) | 130.8 | 91.86 | 202.54 | 60.59 | 88.21 | 118.39 |
| HCFC-141b in imported pre-blended polyols | 1.2 | 1.90 | 4.10 | 0.14 | n/a | 2.81** |
| ODP tonnes | | | | | | |
| HCFC-22 | 6.6 | 4.46 | 10.12 | 2.96 | 4.23 | 6.11 |
| HCFC-123 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| HCFC-124 | 0.1 | 0.06 | 0.07 | 0.04 | 0.07 | 0.03 |
| HCFC-141b | 0.9 | 0.89 | 1.69 | 0.56 | 0.88 | 0.59 |
| Total (ODP tonnes) | 7.5 | 5.41 | 11.87 | 3.56 | 5.18 | 6.80 |
| HCFC-141b in imported pre-blended polyols | 0.1 | 0.21 | 0.45 | 0.02 | n/a | 0.31** |

* Estimated consumption not yet reported under Article 7 of the Montreal Protocol or the country programme data report.

** Average consumption of 2007-2009.

3. Fluctuations on HCFC consumption from 2010 to 2012 are caused by the market forces attempting to reach a supply and demand balance. In some cases, the HCFC purchased in one year arrived into the country on the following year and recorded as an import for that year.

Country programme (CP) implementation report

4. The Government of Nicaragua reported sector HCFC consumption data for 2013 under the country programme implementation report which is consistent with the data reported under Article 7. The 2014 CP data report will be submitted in early May 2015.

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

Legal framework

5. A Presidential Decree (No. 04-2014) has been issued to create a national commission for the registry and control of toxic and dangerous substances including ODS. The new regulation formed a framework for the HCFC licensing and quota system which covered both HCFCs and HCFC-based equipment.

6. A total of 370 customs officers and 120 law enforcement personnel were trained on the application of licensing and quota system, detection of HCFCs and prevention of illegal trade. The National Council of Universities is incorporating Montreal Protocol issues into the curriculum of public universities. This component will be fully implemented in the second tranche.

Refrigeration servicing sector

7. The certification of technicians is being implemented to reinforce the national capacity of the workers in the refrigeration and air-conditioning (RAC) servicing sector. A labour competency standard and a certification procedure are being developed. Three workshops were organized in 2013 and a total of 114 technicians were trained on good practices in servicing and installation of equipment, refrigerant recovery and reuse, and the introduction of hydrocarbon refrigerants. The code of practice and procedure for certification were presented to technicians and it is expected that the first group of technicians will be certified within 2015. Training on the use of nitrogen to replace HCFC-141b as a flushing agent has been programmed in 2015. Twenty-four sets of tool kits have been distributed to technicians, conversion servicing centres and training centres.

8. Two professional training institutions were selected as the national excellence centres for RAC sector. Training manuals have been developed; tools and equipment for leak detection, servicing and refrigerant recovery have been provided to the two training centres.

Project implementation and monitoring unit (PMU)

9. Project coordination and monitoring is conducted by the PMU. The main activities include: coordination of stakeholders; monitoring of project activities and results, proposing corrective actions as needed; monitoring of technology development and emerging alternatives; monitoring of market trends in HCFC use; and preparing annual progress reports for submission to the Executive Committee.

Level of fund disbursement

10. As of February 2015, of the US \$134,500 so far approved (US \$38,000 for UNEP and US \$96,500 for UNIDO), US \$117,804 (88 per cent) had been disbursed (US \$27,476 for UNEP and US \$90,328 for UNIDO). The balance of US \$16,696 will be disbursed in 2015.

Implementation plan for the second tranche of the HPMP

11. During the second tranche of the HPMP, the Government of Nicaragua will implement the following activities:

- (a) Technical assistance for improved control of ODS trade and training of 130 customs officers (UNEP) (US \$12,000);
- (b) Training of 150 technicians on good practices, refrigerant recovery and reuse, and use of alternatives (UNIDO) (US \$34,500);

- (c) Implementation of certification scheme for RAC servicing technicians (UNIDO) (US \$9,000)
- (d) Technical assistance for the foam manufacturing sector to phase-out the use of HCFC-141b contained in imported pre-blended polyols (UNIDO) (US \$6,500); and
- (e) Coordination, monitoring and control (UNEP) (US \$18,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption

12. The HCFC consumption in 2013 and 2014 was below the allowable consumption in 2015. It is expected that a progressive reduction on HCFC consumption will be maintained after 2015.

Verification report

13. The verification report of HCFC consumption in 2013 and 2014 is being finalized and will be submitted by the 74th meeting. Given that the verification report has not been received at the time of writing this document, in accordance with decision 72/19, the Secretariat has added a condition in the recommendation that the transfer of any approved funds for the second tranche to UNEP and UNIDO would occur only after receipt of the verification reports confirming compliance with the Montreal Protocol and the Agreement.

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

Operational licensing and quota system

14. In line with decision 63/17, confirmation has been received from the Government that an enforceable national licensing and quotas system for HCFC imports and exports is in place and that the system is capable of ensuring compliance with the Montreal Protocol. The HCFC import quota for 2015 has been established at 6.12 ODP tonnes in accordance with the Agreement. For subsequent years, the annual quota will be based on the levels allowed under the Montreal Protocol.

Phase-out of HCFC-141b in pre-blended polyols

15. With regard to the phase-out of HCFC-141b contained in the imported pre-blended polyols used by small foam enterprises using hand-mix technology, UNEP informed that it would depend on the availability of non-HCFC-based formulations. Once they are commercially available in Nicaragua, trials will be conducted and technical assistance will be provided to foam enterprises. The ban on the import of HCFC-141b is expected to be implemented in early 2017.

Refrigeration servicing sector

16. The Secretariat enquired about the HCFC alternatives, the introduction of hydrocarbons and safety related issues. UNEP informed that non-HCFC refrigerants are controlled under the same regulations as HCFCs and managed by the NOU. The non-HCFC refrigerants are mainly HFCs. Hydrocarbon refrigerant is not available in the market. Some small quantities were brought to the country for trials, tests and training purpose only. UNEP clarified that the introduction of low global-warming-potential (GWP) refrigerants will be through new equipment that is designed for those refrigerants rather than retrofitting. However, in view of a strong tendency in the region to retrofit the

HCFC-22-based equipment with HC-290, the Government is raising public awareness on safe and proper use of hydrocarbon and providing training to minimise the safety risk. A standard has been developed to regulate the imports, refrigerant quality and commercialization of hydrocarbons for their use in the RAC sector including: safe handling; servicing and charging of equipment; storage; transportation; and labelling of containers and equipment.

Conclusion

17. Nicaragua has been in compliance with the Montreal Protocol control targets in 2013 and 2014, and the quota for 2015 has been set below the control target of the allowable level of consumption for that year. An enforceable national system of licensing and quotas for HCFCs and HCFC-based equipment has been put in place. Training for technicians had been provided, specialized training centres have been established and a certification programme is being implemented to ensure long-term sustainability of capacity development for servicing technicians. A verification report is to be submitted to the 74th meeting. In view of the progress achieved and the funding disbursement rate of 88 per cent, the Secretariat recommends approval of the funding for the second tranche.

RECOMMENDATION

18. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the first tranche of stage I of the HCFC phase-out management plan for Nicaragua.

19. The Fund Secretariat further recommends blanket approval of the second tranche of stage I of the HPMP for Nicaragua, and the corresponding 2015-2017 tranche implementation plan, at the funding levels shown in the table below, on the understanding that:

- (a) If Nicaragua 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; and
- (b) The approved funds would not be transferred to UNEP and UNIDO until the Secretariat had reviewed the verification report and confirmed that the Government of Nicaragua was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee in 2013 and 2014.

| | Project title | Project funding (US \$) | Support cost (US \$) | Implementing agency |
|-----|--|------------------------------------|---------------------------------|--------------------------------|
| (a) | HCFC phase-out management plan (stage I, second tranche) | 30,000 | 3,900 | UNEP |
| (b) | HCFC phase-out management plan (stage I, second tranche) | 50,000 | 4,500 | UNIDO |
