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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-sixth Meeting
Montreal, 9-13 May 2016

OVERVIEW OF ISSUES IDENTIFIED DURING PROJECT REVIEW

1. This document consists of the following sections:

(a) An analysis of the number of projects and activities submitted by bilateral and implementing agencies to the 76th meeting;

(b) Issues identified during the project review process: Requests for multiple delayed or future tranches of stage I of the HPMP.

(c) Projects to demonstrate low-global warming potential (GWP) technologies pursuant to decision 72/40;

(d) Blanket approval:

(i) Verification reports of low-volume-consuming (LVC) countries' compliance with their HPMP agreement;

(ii) Projects and activities submitted for blanket approval; and

(e) Investment projects for individual consideration.

Projects and activities submitted by bilateral and implementing agencies

2. Bilateral and implementing agencies submitted to the 76th meeting 138 funding requests for tranches of approved multi-year agreements, projects and activities amounting to US $187,851,019 (US $839,795,980 including amount requested in principle) including agency support costs where applicable. The funding requests covered:

(a) Seven stage II of the HCFC phase-out management plan (HPMP) for non-LVC countries, including stage II of the HPMP for China consisting of the following sector plans:

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

(i) Polyurethane (PU) rigid foam sector plan;

(ii) Extruded polystyrene (XPS) foam sector plan;

(iii) Industrial and commercial refrigeration and air-conditioning (ICR) sector plan;

(iv) Room air-conditioner manufacturing (RAC) sector plan;

(v) Solvent sector plan; and

(vi) Refrigeration and air-conditioning servicing sector plan and enabling component;

(b) Tranches of approved HPMPs for 30 countries;

(c) Renewals of institutional strengthening (IS) projects in 24 countries;

(d) Project preparation for stage II of the HPMP/HCFC phase-out investment activities for four countries;

(e) Sixteen projects to demonstrate GWP technologies pursuant to decision 72/40; and

(f) One request for preparation of inventories or surveys on alternatives to ozone-depleting substances (ODS) (decision XXVI/9 of the Meeting of the Parties).

3. Following the project review process,64 projects and activities totalling US $9,469,890 including agency support costs, are recommended for blanket approval and 61 projects and activities totalling US $167,718,874 (US $624,968,150 including amount requested in principle) are being forwarded for individual consideration. Together, the projects for blanket approval and those for individual consideration amount to US $177,188,764.

IS renewal requests

4. The Secretariat reviewed the terminal reports and requests for extension of IS funding for 23 countries against relevant decisions including decision 74/51(c) on the funding level for IS projects and renewals, and decision 74/51(e) on the need to include performance indicators for planned activities. All requests were cross-checked against: previous IS reports; progress reports on the implementation of country programmes; data reported under Article 7 of the Montreal Protocol; the latest reports on implementation of HPMPs; bilateral and implementing agencies' progress reports submitted to the 75th meeting; and relevant decisions on compliance adopted by the Parties to the Montreal Protocol.

5. At the inter-agency coordination meeting[1], the Secretariat presented the guide for the submission of institutional strengthening projects that includes a section on the IS common objectives, overall indicators and specific performance indicators. The Secretariat drew agencies' attention to the advice on the standard expected for a satisfactory rating for each of the four overall performance indicators of IS projects, and encouraged implementing agencies to discuss the standard ratings with Article 5 countries.

Projects and activities submitted and subsequently withdrawn

6. During the project review process, issues associated with the tranche of stage I of the HPMPs for Antigua and Barbuda, Burkina Faso (third tranche), Senegal (second tranche) and Somalia (second tranche) at a cost of US $828,684, could not be addressed on time, and therefore, were withdrawn by the relevant lead

[1] Montreal, 1-2 March 2016.

implementing agency. The reasons for the withdrawal of these tranches are described in the document on tranche submission delays[2], and summarized below:

(a) The request for Antigua and Barbuda was withdrawn due to the lack of communication with the national ozone unit and the required endorsement letter;

(b) The requests for Burkina Faso and Senegal were withdrawn since HCFC consumption verification reports for 2013, 2014 and 2015 were not submitted. The Secretariat had raised issues in connection with substantial fluctuations in the levels of HCFC consumption and requested UNEP and UNIDO to discuss with the countries concerned, adjustments to the starting points for sustained aggregate reduction in HCFC consumption based on the verified consumption. In that case, revision of the funding levels, the HPMP strategies and associated activities, and the corresponding agreements for stage I would be required; and

(c) The request for Somalia was withdrawn due to issues related to HCFC consumption. Country programme and Article 7 consumption data for 2014 and 2015 had not been submitted.

Funding withheld pending submission of verification reports or meeting specific conditions

7. As of the end of the 75th meeting, funding approved at the 74th meeting for tranches of the HPMPs for Armenia[3], Dominican Republic[4], Lao People's Democratic Republic[5] and Thailand[6] were still withheld by the Treasurer pending submission of verification reports or further clarifications. At the 75th meeting, funding for tranches of the HPMPs for Bahrain[7], Guatemala[8] and Saudi Arabia[9] were also withheld pending meeting specific conditions.

8. Subsequent to the 75th meeting, the Secretariat has received satisfactory verification reports submitted by the Governments of Armenia, Dominican Republic, Lao People's Democratic Republic and Thailand; a confirmation that the disbursement of the first tranche of the HPMP for Bahrain had reached the 20 per cent disbursement threshold; and that the agreement between the Presidency for Meteorology and Environment of Saudi Arabia and UNEP had been signed, resulting in the disbursement of funds by the Treasurer to the relevant bilateral and implementing agencies.

[2] UNEP/OzL.Pro/ExCom/76/6.

[3] The third tranche was approved on the understanding that the funds would not be transferred to UNEP until the Secretariat had reviewed the verification report and confirmed that the Government of Armenia was in compliance with the Montreal Protocol and the Agreement (decision 74/23(a)).

[4] The third tranche was approved on the understanding that the funds would not be transferred to UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of the Dominican Republic was in compliance with the Montreal Protocol and the Agreement (decision 74/41(d)(ii)).

[5] The second third tranche was approved on the understanding that the funds would not be transferred to UNEP until the Secretariat had reviewed the verification report and confirmed that the Government of Lao People's Democratic Republic was in compliance with the Montreal Protocol and the Agreement (decision 74/23(a)).

[6] The second tranche was approved on the understanding that the approved funds would not be transferred to the World Bank until the Secretariat had reviewed the verification report and confirmed that the Government of Thailand was in compliance with the Montreal Protocol and the Agreement (decision 74/48(b)(ii)).

[7] The second tranche was approved, on an exceptional basis, on the understanding that the approved funds would not be transferred to UNEP until the disbursement of the first tranche had reached the 20 per cent disbursement threshold in line with paragraph 5(c) of the Agreement (decision 75/51(b)).

[8] The third tranche was approved on the understanding that *inter alia* the Treasurer would not disburse the funding for UNEP until the Secretariat had received confirmation that the agreement between the Division of International Cooperation of the Ministry of Environment of Guatemala and UNEP had been signed (decision 75/59(c)(ii)).

[9] The third tranche was approved on the understanding that the approved funds would not be transferred to UNIDO until the agreement between the Presidency for Meteorology and Environment and UNEP had been finalized and signed (decision 75/64(d)).

9. As the agreement between the Division of International Cooperation of the Ministry of Environment of Guatemala and UNEP has not been signed, the Executive Committee might wish to urge the Government to sign the aforementioned agreement so that the funding associated with the third tranche could be released by the Treasurer in line with decision 75/59(c)(ii)).

Issues identified during project review

Requests for multiple delayed or future tranches of stage I of the HPMP

10. At the 76th meeting, submissions for tranches of stage I of the HPMPs for four countries included requests for the consideration of multiple tranches at the same time due to the following:

(a) Merging outstanding tranches due to implementation delays and need to complete stage I (Chile[10] and Indonesia[11]); and,

(b) Advanced tranche requests for LVC countries to enable purchase of equipment for efficient implementation of activities (Benin[12] and Saint Lucia[13]).

11. At the 75th meeting, the Executive Committee noted, *inter alia*, that Article 5 countries for which multiple tranche requests had been submitted to the same meeting due to major delays in implementation would submit revised plans of action to take into account the reallocation of the outstanding tranches (decision 75/3(b)(ii)).

12. In the case of Chile, the request to submit the last two remaining delayed tranches (for 2014 and 2015) to the 76th meeting was driven by the fact that stage II was also submitted to the same meeting, and the revised work plan accompanying the request would enable the completion of stage I and reduce overlap between stages during implementation. With the approval of the two delayed tranches, stage I of the HPMP is expected to be completed by December 2017, without additional requests for extension.

13. The Government of Indonesia submitted the request for the third tranche of stage I and stage II of its HPMP to the 76th meeting. In order to reduce overlap between stages and in light of the revised work plan under stage I, which would facilitate the introduction of low-GWP alternatives and make it possible to begin implementation of phase-out activities in the refrigeration servicing sector, the Secretariat recommended combining the third and fourth tranches of stage I.

14. With regard to Benin, advancing the tranche related to equipment purchasing would result in more cost-effective equipment purchasing and shipment costs (i.e. shipment costs used up 30 per cent of the budget allocated for equipment); therefore, the Government of Benin had requested that funds allocated to UNIDO under the fourth and fifth tranches (i.e. US $70,000) be approved with the third tranche. With regard to Saint Lucia, the Government had requested advanced funding due to the low funding levels of each of the fourth and fifth tranches for UNIDO (i.e., US $3,259 and US $5,697, respectively), which hampered proper implementation.

15. The Secretariat reviewed these requests in light of the specific circumstances described by each country and the revised work plans submitted to support the tranche requests, and provided recommendations accordingly as contained in the relevant documents.

16. Given that these circumstances may arise in other Article 5 countries, particularly LVC countries, the Executive Committee may wish:

[10] UNEP/OzL.Pro/ExCom/76/24.
[11] UNEP/OzL.Pro/ExCom/76/36.
[12] UNEP/OzL.Pro/ExCom/76/18.
[13] UNEP/OzL.Pro/ExCom/76/44.

(a) To urge bilateral and implementing agencies and Article 5 countries to implement approved tranches of HPMPs on time to avoid delays in the submission of future funding tranches;

(b) To request bilateral and implementing agencies and Article 5 countries to ensure proper planning and distribution of the tranches for stage II of the HPMPs to ensure efficient equipment procurement, taking into account relevant decisions of the Executive Committee, in particular the requirements for the 20 per cent disbursement of the previous tranche, and for allocating at least 10 per cent of the total funding approved in principle for the refrigeration servicing sector for the stage of the HPMP to the last tranche; and,

(c) To consider any funding request for approval of two or more tranches of a stage of an HPMP at the same meeting of the Executive Committee on a case-by-case basis, noting the requirement for revised work and disbursement plans and agreements.

Projects to demonstrate low-GWP technologies pursuant to decision 72/40

Background

17. At the 74th meeting, the Executive Committee considered 26 concepts for demonstration projects on low-GWP technologies, and three feasibility studies for district cooling[14], in line with decision 72/40. Following discussions, funding was approved for one feasibility study for district cooling[15] and for the preparation of 13 projects to demonstrate low-GWP technologies[16], with full proposals to be submitted to the 75th and 76th meetings[17]. In addition, the Executive Committee agreed to consider at the 75th meeting a limited number of additional requests for the preparation of projects to demonstrate low-GWP technologies in the air-conditioning manufacturing sector[18], the resubmission of two full demonstration project proposals for Colombia [19]and Egypt[20] that were submitted but not considered at the 74th meeting, and additional feasibility studies for district cooling[21].

18. At the 75th meeting, the Executive Committee took note of 11 project proposals to demonstrate low-GWP alternatives to HCFCs[22] and two proposals for feasibility studies on district cooling[23], submitted in line with decision 74/21. Following discussions at a contact group established by the Chair, the Executive Committee approved funding for two feasibility studies for district cooling[24], and two projects to demonstrate low-GWP technologies in Colombia[25] and Morocco[26]. It also agreed to allow the resubmission

[14] Dominican Republic, Egypt and Kuwait.
[15] Feasibility study to develop a business model for district cooling in the Dominican Republic approved in the amount of US $91,743, plus agency support costs of US $8,257 for UNDP (decision 74/27).
[16] Decision 74/21(b).
[17] In addition, the Executive Committee retained in UNIDO's work programme the request for funds for the preparation of a regional centre of excellence for demonstration and training of low-GWP ozone-safe alternative technologies in the Europe and Central Asia submitted by the Government of the Russian Federation (decision 74/24)..
[18] Decision 74/21(d).
[19] Decision 74/38.
[20] Decision 74/39.
[21] Decision 74/21(d).
[22] Five in the refrigeration and air-conditioning sector and six in the foam sector.
[23] Egypt and Kuwait.
[24] Feasibility study for district cooling in New Cairo, Egypt, which would include a business model at the amount of US $100,000, including agency support costs for UNEP and UNIDO (decisions 75/33 and 75/35); and feasibility study comparing three not-in-kind technologies for use in central air-conditioning in Kuwait at the amount of US $100,000, including agency support costs for UNEP and UNIDO (decisions 75/34 and 75/36).
[25] Demonstration project for the use of R-290 (propane) as an alternative refrigerant in commercial air-conditioning manufacturing at Industrias Thermotar Ltda., in the amount of US $535,000, including agency support costs for UNDP (decision 75/40).

of five demonstration project proposals for the foam sector (Colombia, Egypt, Saudi Arabia, South Africa and Thailand) and three demonstration project proposals for the RAC manufacturing sector (China, Saudi Arabia and West Asia) to the 76th meeting, in addition to those outstanding projects that received project preparation funding at the 74th meeting (decision 75/42).

An overview of demonstration projects submitted to the 76th meeting

19. Pursuant to decision 72/40, bilateral and implementing agencies submitted to the 75th and 76th meetings 18 project proposals to demonstrate low-GWP technologies, at a total funding of US $18,028,551, (including agency support costs), consisting of US $598,130 for project preparation (already approved) and US $17,430,421 for the demonstration projects, as submitted. The overall level of funding requested was approximately US $8 million above the US $10 million allocated in decision 72/40.

20. During the project review process, bilateral and implementing agencies rationalized the costs of the demonstration projects submitted to the 76th meeting in line with decision 74/21(c)[27]; and one demonstration project submitted (at a total funding level of US $4,707,321, excluding support cost) was subsequently withdrawn. Accordingly, the total funding level for all demonstration projects submitted under decision 72/40 would amount to US $11,395,605 including project preparation (i.e., US $1,395,605 above the US $10 million funding available).

21. To facilitate the review, the projects to be considered at the 76th meeting have been grouped as follows:

(a) Seven demonstration projects in the air-conditioning and assembly sub-sector, at a total cost of US $6,804,193 (including agency support costs), in six countries and one region (West Asia);

(b) Five demonstration projects in the foam sector at a total cost of US $1,310,724 (including agency support costs), in five countries; and

(c) Three demonstration projects in the refrigeration servicing sector, at a total cost of US $1,847,423 (including agency support costs), consisting of one project each for one country and one region (Europe), and one global project (covering Egypt, Mexico, the Former Yugoslav Republic of Macedonia, and the Caribbean and East African regions).

22. The breakdown of funding requests for all demonstration projects (including project preparation, project costs as submitted and agency support costs) is summarized in Table 1. A detailed description of each of the demonstration projects can be found in the relative meeting document as indicated in the first column of the table.

Table 1. Overview of submission of demonstration projects (US $)

Country (document number ExCom)	Agency	Sector	Project preparation	Cost as submitted	Cost agreed
Submitted to the 76th meeting					
Refrigeration and air-conditioning and assembly sector					
China (76/25)	UNDP	RAC	24,000	1,234,693	1,097,931
Costa Rica (76/28)	UNDP	Assembly	40,000	590,000	524,000
Kuwait (76/38)	UNDP	RAC	20,000	343,000	293,000

[26] Demonstration project on the use of low-cost pentane foaming technology for the conversion to non-ODS technologies in polyurethane foams at small and medium-sized enterprises in Morocco, in the amount of US $300,135, including agency support costs for UNIDO (decision 75/41).

[27] Bilateral and implementing agencies were requested to rationalize the costs of the demonstration projects to enable the approval of a larger number of demonstration projects under the available funding of US $10 million, in line with decision 72/40, and to further explore other sources of additional funding.

Country (document number ExCom)	Agency	Sector	Project preparation	Cost as submitted	Cost agreed
Saudi Arabia (76/46)	UNIDO	RAC	30,000	1,690,000	1,570,000*
Saudi Arabia (76/46)	World Bank	RAC	0	1,306,800	1,306,800
Global (Argentina, Tunisia) (76/56)	UNIDO	Assembly	60,000	968,665	846,300
Regional: West Asia (76/57)	UNEP/UNIDO	RAC	0	750,000	700,000
Foam sector					
Colombia (76/26)	UNDP	Foam	0	282,480	248,380
Egypt (76/31)	UNDP	Foam	0	340,000	295,000
India (withdrawn to be part of stage II)	UNDP	Foam	30,000	4,707,321	0
Saudi Arabia (76/46)	UNIDO	Foam	30,000	274,016	96,250
South Africa (76/48)	UNIDO	Foam	40,000	493,366	222,200
Thailand (76/50)	World Bank	Foam	30,000	355,905	352,550
Servicing sector					
Maldives (76/40)	UNDP	Service	15,000	144,000	141,000
Regional: Europe and Central Asia (76/57)	Russian Federation	Service	50,000	852,600	591,600
Global (76/56)	UNIDO/UNEP	Service	150,000	1,105,100	955,100
Cost	n/a		519,000	15,437,946	9,240,111
Support costs	n/a		36,330	1,157,340	722,229
Total cost	n/a		**555,330**	**16,595,286**	**9,962,340**
Approved at the 75th meeting					
Colombia (75/42)	UNDP	RAC	0	500,000	500,000
Morocco (75/58)	UNIDO	Foam	40,000	280,500	280,500
Support costs	n/a		2,800	54,635	54,635
Total cost	n/a		**42,800**	**835,135**	**835,135**
Grand total cost			**598,130**	**17,430,421**	**10,797,475**

*Level of funding would be reduced by US $160,000 plus corresponding agency support costs in case the project "Promoting refrigerant alternatives for high-ambient temperature countries (PRAHA-II)" is approved

Review of the demonstration project proposals by the Secretariat

23. The Secretariat notes with appreciation:

(a) The efforts by the Governments of relevant Article 5 countries, with the assistance from bilateral and implementing agencies, to prepare and submit project proposals to demonstrate low-GWP alternative technologies;

(b) The efforts by bilateral and implementing agencies to rationalize the costs of the projects submitted to the 76th meeting in line with decision 74/21(c); and

(c) The resolution by bilateral and implementing agencies of the Secretariat's comments on projects proposals that were previously submitted and resubmitted to the 76th meeting.

24. The Secretariat reviewed each project proposal based on discussions by members of the Executive Committee at the 74th and 75th meetings, relevant policy decisions adopted by the Executive Committee, and the criteria set out in decision 72/40[28], as summarized below:

(a) Increase in current know-how with respect to the alternative technology, representing a significant technological step forward;

(b) Description of technology; its association to other activities in the country; its potential replicability in a significant amount of activities in the same sub-sector; and energy efficiency promotion (where applicable) and consideration of other environmental impacts;

[28] Including additional guidance provided at the 73rd meeting (paragraph 97 of UNEP/OzL.Pro/ExCom/73/62).

(c) Geographical distribution;

(d) Sectors, with a priority to air-conditioning manufacturing, and for other sectors (namely foam), the added value of the proposed alternative technology as compared to projects completed in stage I of HPMPs;

(e) Relatively short implementation period in order to maximize opportunities for using the results for activities in stage II of HPMPs; and

(f) Commitment from an eligible manufacturing enterprise to undertake the conversion to the alternative technology.

25. The Secretariat provided comments to relevant bilateral and implementing agencies on all the demonstration projects, followed by discussions that clarified outstanding issues. In addition, the Secretariat sought technical advice from independent refrigeration and foam experts. The results of the review of each of the demonstration project are summarized in Annex 1.

26. After the review process, and to facilitate the discussion by the Executive Committee at the 76th meeting, the Secretariat grouped the demonstration projects in the following two groups: Group I, listing the projects recommended for approval; and Group II, listing the projects with outstanding issues such as added demonstration value of the technology; lack of endorsement letter; potential overlaps with other proposals; geographical distribution; and availability of funds, as shown in Table 2.

Table 2. Summary table of demonstration projects submitted under decision 72/40

Country (document number)	Reference/(short title)	Sector	Agency	Cost (US$)*
Projects approved at the 75th meeting (for reference)				
Colombia (75/42)	HC-290 in commercial AC	RAC	UNDP	535,000
Morocco (75/58)	Low cost pentane foam technology	Foam	UNIDO	300,135
Total				**835,135**
Submitted to the 76th meeting: Group I (project proposals recommended for approval)				
China (76/25)	Ammonia compressors	RAC	UNDP	1,174,786
Costa Rica (76/28)	Ammonia/CO_2 cold room	Assembly	UNDP	560,680
Kuwait (76/38)	HC-290 and HFC-32 AC units performance assessment	RAC	UNDP	313,510
Global (Argentina and Tunisia) (76/56)	Trans-critical CO_2 in supermarkets	Assembly	UNIDO	905,541
Egypt (76/31)	Development of low-cost foam dispenser	Foam	UNDP	315,650
Saudi Arabia (76/46)	HFO in spray foam	Foam	UNIDO	104,913
South Africa (76/48)	Use of vacuum injection foam (HC)	Foam	UNIDO	242,198
Thailand (76/50)	Reduced HFO in spray foam	Foam	World Bank	377,229
Maldives (76/40)	HFO in fisheries	Service	UNDP	153,690
Regional: Europe and Central Asia (76/57)	Regional refrigeration centre for training, certification	Service	Russian Federation	666,676
Total				**4,814,873**

Submitted to the 76th meeting: Group II (project proposals with outstanding issues)					
Country (document number)	**Reference (short title)**	**Sector**	**Agency**	**Issue**	**Total cost**
Saudi Arabia (76/46)	HFO/HC in split AC manufacturing	RAC	UNIDO	Overlap. Endorsement letter. Geographical distribution.	1,679,900**
Saudi Arabia (76/46)	HC-290/HFC-32 AC in window AC and packaged units	RAC	World Bank	Overlap. One enterprise established after cut-off date. Geographical distribution.	1,398,276

Country (document number)	Reference/(short title)			Sector	Agency	Cost (US$)*
Regional: West Asia (76/57)	PRAHA II	RAC	UNEP/ UNIDO	Endorsement letters.		771,500
Colombia (76/26)	Reduced HFO in panels and spray	Foam	UNDP	Geographical distribution.		270,734
Global (76/56)	Refrigerant quality, containment, introduction of low-GWP refrigerants	Service	UNIDO/ UNEP	Endorsement letters. Demonstration value.		1,027,057
Total						**5,147,467**
Grand total						**10,797,475**

*Including support cost.
**Level of funding would be reduced by US $160,000 plus corresponding agency support costs in case the project "Promoting refrigerant alternatives for high-ambient temperature countries (PRAHA-II)" is approved.

Overview of total costs of the project proposals to demonstrate low-GWP technologies

27. The review by the Secretariat of the demonstration projects resulted in the recommendation for approval of US $4,814,873 (including support cost) for two projects in the air-conditioning manufacturing sector, two projects in the refrigeration installation and assembly sector, four projects in the foam sector and two projects in the refrigeration servicing sector. The recommendation for approval of the remaining projects would be subject to further discussion at the Executive Committee (Table 2).

Secretariat's recommendation

28. The Executive Committee may wish to consider approving funding for proposals for demonstration projects for low-GWP alternatives in light of the assessment contained in document UNEP/OzL.Pro/ExCom/76/12 and the detailed information provided in the relevant documents of the Executive Committee.

Projects and activities submitted for blanket approval

29. This section presents verification reports of LVC countries' compliance with their HPMP agreement and the projects and activities submitted for blanket approval

Verification reports of LVC countries' compliance with their HPMP agreement

30. In line with decision 61/46(c)[29], the Secretariat selected a sample of 17 countries for the purpose of verifying compliance with the HPMP agreement, as shown in Table 3. These countries were selected using the following criteria:

(a) Geographical distribution of the countries (eight in Africa, one in South Asia, one in Europe and Central Asia and seven in Latin America and the Caribbean);

(b) Level of HCFC consumption among countries (i.e., eleven countries with an HCFC consumption baseline below 100 mt; two countries with a consumption baseline between 101 and 200 mt, and four countries with a consumption baseline over 200 mt);

(c) Countries that had not yet received funding for a verification report; and

[29] The Secretariat was requested to provide, at the first meeting of each year, a list representing 20 per cent of countries with an HCFC consumption baseline of up to 360 metric tonnes (mt), and with an approved HPMP, to approve funding for them for the purposes of verification of that country's compliance with the HPMP agreement for that year.

(d) Distribution among bilateral and implementing agencies (thirteen for UNEP and two for UNDP, one for UNIDO and one for Germany).

Table 3. Sample of Article 5 countries for verification of compliance with their HPMP agreement

No.	Country	HCFC baseline (mt)	Lead/cooperating agency	Next tranche request
1	Benin	*432.51	UNEP/UNIDO	2018
2	Cape Verde	18.50	UNEP	2018
3	Chad	292.7	UNEP/UNIDO	2018
4	El Salvador	186.51	UNDP/UNEP	2020
5	Ecuador	*427.73	UNIDO/UNEP	2018
6	Grenada	15.10	UNEP	2020
7	Guyana	31.02	UNEP/UNDP	2018
8	Jamaica	263.68	UNDP/UNEP	2020
9	Kyrgyzstan	66.61	UNEP	2018
10	Liberia	95.45	Germany	2020
11	Mozambique	118.18	UNEP/UNIDO	2018
12	Nepal	20.00	UNEP/UNDP	2020
13	Saint Kitts and Nevis	8.92	UNEP/UNDP	2020
14	Saint Vincent and the Grenadines	5.13	UNEP/UNIDO	2018
15	Sierra Leone	30.37	UNEP/UNIDO	2018
16	Swaziland	81.74	UNEP/UNDP	2019
17	Zambia	89.95	UNEP/UNIDO	2020

*Baseline consumption was below 360 mt at the time of approval of the HPMP. Baseline consumption was revised but for the purpose of funding the country continued to be treated as an LVC country.

Secretariat's recommendation

31. The Executive Committee may wish to request relevant bilateral and implementing agencies to include in their respective amendments to the work programmes for submission to the 77th meeting, funding for verification reports for stage I of the HPMPs in the amount of US $30,000, plus agency support costs, for each of the Article 5 countries listed in Table 3.

Projects and activities submitted for blanket approval

32. Annex II to the present document lists 64 projects and activities totalling US $9,469,890 including support costs that are recommended for blanket approval. The approval of these projects by the Executive Committee would include the relevant conditions or provisions in the corresponding project evaluation sheets as well as the approval of implementation programmes associated with the relevant tranches of multi-year projects.

Investment projects for individual consideration

33. Sixty-one projects/activities, totalling US $167,718,874 (US $624,968,150) including amount requested in principle) including support costs, after the review by the Secretariat, are proposed for individual consideration. To facilitate the Executive Committee's consideration of the investment projects for individual consideration, the Secretariat has classified the projects by sector, and has grouped them according to the issues, as shown in Table 4. Table 4 also includes a section on the projects to demonstrate low-GWP technologies listed on Table 1.

34. The Executive Committee may wish to consider the request for the third tranche of stage I jointly with stage II of the HPMP for Viet Nam given the intrinsic relation between the proposed modification to the foam sector plan approved in stage I and the proposed sector plan contained in stage II.

Table 4. Projects submitted for individual consideration

Country	Project	Agency	ExCom	Issue
Projects to demonstrate low-GWP technologies				
Several	Low-GWP demonstration projects	Several	Table 1 above	Demonstration projects to be selected based on the assessment presented above
Stage II of HPMPs				
Chile	HCFC phase-out management plan stage II - first tranche	UNDP	76/24*	All technical and cost issues resolved; stage II of an HPMP
Indonesia	HCFC phase-out management plan stage II - first tranche	UNDP/World Bank	76/36*	All technical and cost issues resolved; stage II of an HPMP
Pakistan	HCFC phase-out management plan stage II - first tranche	UNEP/UNIDO	76/42	All technical and cost issues resolved; stage II of an HPMP
Panama	HCFC phase-out management plan stage II - first tranche	UNEP/UNDP	76/43	All technical and cost issues resolved; stage II of an HPMP
Venezuela (Bolivarian Republic of)	HCFC phase-out management plan stage II - first tranche	UNEP/UNIDO	76/54	All technical and cost issues resolved; stage II of an HPMP
Viet Nam	HCFC phase-out management plan stage II - first tranche	World Bank	76/55*	No agreement on costs; treatment of non-eligible enterprises
Stage II of the HPMP for China				
China	HCFC phase-out management plan stage II - first tranche	Several	76/25	Subject to discussion on China sector plans
	Polyurethane (PU) rigid foam sector plan	World Bank		Costs still under discussion
	Extruded polystyrene (XPS) foam sector plan	UNIDO/Germany		Costs still under discussion
	Room air-conditioner manufacturing (RAC) sector plan	UNIDO		Costs still under discussion
	Industrial and commercial refrigeration and air-conditioning (ICR) sector plan;	UNDP		Costs still under discussion
	Solvent sector plan	UNEP		All technical and cost issues resolved; Stage II sector plan
	Refrigeration and air-conditioning servicing sector plan and enabling component	UNEP/Japan		MISSING ISSUE
Tranche request of stage I HPMP				
Benin	HCFC phase-out management plan stage I – third tranche	UNEP/UNIDO	76/18	Advance request for fourth and fifth tranches to allow the issuance of larger purchase orders, thus, reducing the shipping costs of the equipment
Chile	HCFC phase-out management plan stage I – fourth and fifth tranches		76/24	Revised Agreement to combine the fourth and fifth tranches and extend the implementation period
Indonesia	HCFC phase-out management plan stage I – third tranche	UNDP/ UNIDO/World Bank/Australia	76/36	Potential return of funds and potential revised Agreement to combine the third and fourth tranches
Saint Lucia	HCFC phase-out management plan stage I – third tranche	UNEP/UNIDO	76/44	Advance request for fourth and fifth tranches to the current meeting
Viet Nam	Stage I – third tranche	World Bank	76/55	Possible replacement of an enterprise; revision to Agreement

*Document also includes a tranche request for stage I of the HPMP

Annex I

SECRETARIAT'S ASSESSMENT OF DEMONSTRATION PROJECTS SUBMITTED (DECISION 72/40)

PROJECTS SUBMITTED TO THE 76TH MEETING	
AIR-CONDITIONING AND ASSEMBLY SUBSECTORS	
Country	China (ExCom/76/25)
Implementing Agency	UNDP
Project title	Demonstration project for ammonia semi-hermetic frequency convertible screw refrigeration compression unit in the industrial and commercial refrigeration industry at Fujian Snowman Co., Ltd.
Subsector/application	Industrial/ commercial/ screw compressor
Alternative technology	NH_3, CO_2
Total funding (US $)	1,200,466 (i.e., 1,174,786 project cost plus 25,680 project preparation)
Description: Establish the suitability of NH_3 semi-hermetic frequency convertible screw refrigeration compression units with carbon dioxide (CO_2) as the secondary refrigerant used in small- and medium-sized ICR systems. The alternative technology will be tested and standardized in a factory-controlled environment.	
Assessment: The project has been closely linked with the phase-out activities proposed in the HPMP for China. If proven successful, it will provide a technology solution to replace HCFC-22 in small- and medium-sized ICR equipment with refrigerant charge below 200 kg. The technology has never been tested in an Article 5 country and will provide a viable alternative with zero ODP, low-GWP and improved energy efficiency for small- and medium-sized refrigeration applications, including supermarket and cold-chain stores. The intellectual property rights for compressor design insisted by the beneficiary enterprise could be a barrier for technology dissemination.	
Country	Costa Rica (ExCom/76/28)
Implementing Agency	UNDP
Project title	Demonstration of the application of an ammonia/carbon dioxide refrigeration system in replacement of HCFC 22 for the medium-sized producer and retail store at Premezclas Industriales S.A
Subsector/application	Assembly (commercial refrigeration)
Alternative(s)	R-717, R-744
Funding requested (US $)	603,480 (i.e., 560,680 project cost plus 42,800 project preparation)
Description: Design and install a new R-717/R-744 two stage system with R-717 as a primary refrigerant and R-744 as heat-transfer coolant, test the system to evaluate its performance and energy efficiency as compared with the HCFC-22 based system, and train engineers and technicians. The information collected will be used for developing standards and guidelines for the design, installation and operation of R-717/R-744 systems in countries with similar climatic conditions as those of Costa Rica.	
Assessment: The project will increase knowledge of the R-717/R-744 two stage refrigeration system, representing a technological step forward. The project has been linked with the phase-out activities proposed in the HPMP for Costa Rica. If proven successful, the project will provide a viable low-GWP technology to replace HCFC-22 used in supermarket and cold storage applications, with a potential to improve energy efficiency of the new refrigeration system. The phase-out associated with this project is 0.64 mt (0.035 ODP tonnes) of HCFC-22.	
Country	Kuwait (ExCom/76/38)
Implementing Agency	UNDP
Project title	Demonstration project for HCFC free low GWP technology performance in air-conditioning applications
Subsector/application	Commercial AC

Alternative(s)	HC-290, HFC-32
Funding requested (US $)	334,910 (i.e., 313,510 project cost plus 21,400 project preparation)
Description: Evaluate the performance of two types of air-conditioning equipment: an 8-tonne capacity HFC 32-based air conditioning system; and a 40 tonne capacity mini-chiller using HC-290 refrigerant. The performance of both types of equipment will be monitored and evaluated taking into consideration, *inter alia*, performance of compressors, condensers, evaporators, energy efficiency and power consumption, and will be compared with HCFC-22 based and HFC- 410A based equipment of similar size and capacity.	
Assessment: The project has potential links with developing a better strategy for the servicing sector in stage II of the HPMP for Kuwait. If proven successful, it will provide a potential for the introduction of low-GWP-based air-conditioning equipment in all countries with high ambient temperatures.	
Country	Saudi Arabia (ExCom/76/46)
Implementing Agency	UNIDO
Project title	Demonstration project on promoting HFO-based low-GWP refrigerants for the air conditioning sector in high-ambient temperatures
Subsector/application	Residential AC
Alternative(s)	Low-GWP HFO/HFC blends, HC-290
Funding requested (US $)	1,712,000 (i.e., 1,679,900 project cost plus 32,100 project preparation)
Description: Manufacture and test pilot model window and split-unit air conditioners with low-GWP HFO/HFC blends as well as HC-290. Units will be redesigned and optimized, including meeting energy efficiency standards. A demonstration production run will be made to verify the procedures and workmanship required. Given limitations in the existing manufacturing line to operate with flammable refrigerants, a production line will be setup to simulate production and later converted to a full production line.	
Assessment: The project addresses one of the priority sectors under decision 72/40. The use of HFO in the high-ambient temperature presents a technological advancement. If successful, there is a potential for replication in countries with high-ambient temperature. This project has a partial overlap with the demonstration project submitted by the World Bank for Saudi Arabia related to the testing of HC-290. Furthermore, there are a total of three demonstration project proposals in Saudi Arabia, and no endorsement letter from the Government was provided for this project.	
Country	Saudi Arabia (ExCom/76/46)
Implementing Agency	The World Bank
Project title	Demonstration project at air-conditioning manufacturers to develop windows and packaged air-conditioners using lower global warming potential refrigerants
Subsector/application	Residential and commercial AC
Alternative(s)	HFC-32, HC-290
Funding requested (US $)	1,398,276 (prepared without funding for project preparation)
Description: To build, test (under laboratory conditions), and optimize prototypes of window and packaged AC units based on HFC-32 and HC-290 refrigerants; evaluate their energy performance under high ambient temperature conditions; assess the incremental cost of the conversion; and disseminate the results to manufacturers in Saudi Arabia and other countries.	
Assessment: The project addresses one of the priority sectors under decision 72/40 and could have a positive impact on the introduction of low-GWP technologies for AC operating in countries with high ambient temperatures. The phase-out associated with this project is 3.59 ODP tonnes. The demonstration project component related to Petra KSA, one of the two enterprises in the project, would be ineligible, as the enterprise was established after of the cut-off date (decisions 60/44 and 74/50). Furthermore, this project has a partial overlap with the demonstration project submitted by UNIDO for Saudi Arabia related to the testing of HC-290; manufacturing of AC units with HFC-32 and HC-290 is already taking place in several countries; and there are a total of three demonstration project proposals in Saudi Arabia.	

Country	Global (ExCom/76/56)
Implementing Agency	UNIDO
Project title	Demonstration project for the introduction of trans-critical CO2 refrigeration technology for supermarkets (Argentina and Tunisia)
Subsector/application	Assembly (commercial refrigeration)
Alternative(s)	CO_2
Funding requested (US $)	969,741 (i.e., 905,541 project cost plus 64,200 project preparation)
Description: Introduce trans-critical CO_2 refrigeration systems in two carefully selected representative supermarkets in Argentina and Tunisia, both located in moderately warm climatic conditions on two continents. It will address the long-term sustainability of the alternative, and other technical issues related to its ease of installation and cost.	
Assessment: If proven successful, the project will provide a viable low-GWP technology to replace HCFC-22 used in supermarket and cold storage applications, with a potential to improve energy efficiency of the new refrigeration system. Project is expected to be replicated in countries in both regions thereby promoting the use of low-GWP refrigerants in the assembly sector.	
Country	Regional (West Asia) (ExCom/76/57)
Implementing Agencies	UNEP, UNIDO
Project title	Promoting refrigerant alternatives for high-ambient temperature countries (PRAHA-II)
Subsector/application	AC
Alternative(s)	HFC-32, HC-290 and HFO blends
Funding requested (US $)	771,500 (prepared without funding for project preparation)
Support costs (US $)	n/a
Description: To build on the progress of the demonstration project to promote low-GWP alternatives for the AC industry in countries with high-ambient temperature in West Asia, PRAHA I (approved at the 69th meeting), and advance the capacity of stakeholders to use low-GWP refrigerants in the AC sector in countries with high-ambient temperature. The project focuses on building local design capacity, developing risk models for the assessment of low-GWP refrigerants in AC systems, and knowledge sharing and technical platforms.	
Assessment: The project addresses one of the priority sectors under decision 72/40 and could have a positive impact on the introduction of low-GWP technologies for AC systems operating in countries with high-ambient temperatures. The project review took into consideration the two demonstration projects on AC manufacturing in Saudi Arabia submitted by UNIDO and the World Bank and the completion report of the PRAHA-I demonstration project submitted by UNEP and UNIDO were taken into consideration. The project will complement the demonstration project on AC manufacturing in Saudi Arabia (UNIDO); will build on the lessons learned from other Article 5 countries where AC systems based on low-GWP refrigerants have been introduced. No endorsement letters from the participating Article 5 countries were provided.	
FOAM SECTOR	
Country	Colombia (ExCom/76/26)
Implementing Agency	UNDP
Project title	Demonstration project to validate the use of hydrofluoro olefins for discontinuous panels in Article 5 Parties through the development of cost effective formulations
Subsector/application	Rigid PU foam: discontinuous panels, spray
Alternative(s)	Reduced HFO-1233zd(E), reduced HFO-1336maam(z)
Funding requested (US $)	270,734 (prepared without funding for project preparation)
Description: Validation of reduced-HFOs formulation for use in PU foam for discontinuous panels; optimization of the formulation to achieve a similar foam thermal performance as HCFC-141b-based formulations; and cost analysis between different reduced-HFO formulations and HCFC-141b-based formulations. The activities will be conducted in a systems house and include formulation development, testing, analysis of results, field tests and dissemination	

workshops.	
Assessment: Development and optimization of reduced HFO pre-blended polyol formulations will decrease the cost of the polyol systems and make HFOs more economically viable for foam enterprises in particular SMEs. Results may be replicable in Colombia and other Article 5 countries given the potential increase in performance and potential cost reductions. One demonstration (the use of HC-290 (propane) as an alternative refrigerant in commercial air conditioning manufacturing at Industrias Thermotar ltda) had been approved in Colombia *75th meeting)).	
Country	Egypt (ExCom/76/31)
Implementing Agency	UNDP
Project title	Demonstration of low cost options for the conversion to non ODS technologies in polyurethane foams at very small users
Subsector/application	Rigid PU, pour-in-place
Alternative(s)	Methyl formate, methylal
Funding requested (US $)	315,650 (prepared without funding for project preparation)
Description: Develop a low cost foam dispensing unit based on an air compressor that is not dependant on electrical power, for pour-in-place (PIP) applications, or alternatively, explore options for reducing the cost of foam dispensers currently available in the market that could be used by very small users (VSUs). Explore the option of pre-packaging PU foam systems that are sealed, have a long lifetime and can be used upon demand (they are currently in use in Colombia, Mexico and the United States of America for certain applications).	
Assessment: Implementation of this project could benefit VSUs by reducing the cost of a foam dispenser and providing pre-packaged low GWP based foam systems that could easily be used when required. However, the proposal does not strictly demonstrate new low-GWP alternatives as it uses already commercially available technology. The phase-out associated with this project is 4.4 ODP tonnes of HCFC-141b.	
Country	Saudi Arabia (ExCom/76/46)
Implementing Agency	UNIDO
Project title	Demonstration project for the phase-out of HCFCs by using HFO as foam blowing agent in the spray foam applications in high-ambient temperatures
Subsector/application	Rigid PU foam: spray
Alternative(s)	HFO-1233zd(E), HFO-1336mzz(Z)
Funding requested (US $)	137,013 (i.e., 104,913 project cost plus 32,100 project preparation)
Description: Demonstrate the benefits, applicability and replicability from the use of HFO-1233zd(E) and HFO-1336mzz(Z) co-blown with water in PU spray foam sector; and assess capital and operating costs reductions compared with other alternatives through the use of an optimized water/physical foam blowing agent, lower foam density and lower thermal conductivity.	
Assessment: The project will increase knowledge in the application of reduced HFO formulations in a sector with a large number of SMEs with identified challenges in the introduction of low-GWP technologies. Under stage I of the HPMP for Saudi Arabia, funding had already been provided to locally-owned systems houses to customize formulations, including HFO formulations, and Sham Najd is amongst the downstream customers of the systems houses. Therefore, there is no more remaining consumption of HCFC-141b eligible for funding. Furthermore, there are a total of three demonstration project proposals in Saudi Arabia.	
Country	South Africa (ExCom 76/48)
Implementing Agency	UNIDO
Project title	Demonstration project on the technical and economic advantages of the vacuum assisted injection (VAI) in discontinuous panel's plant retrofitted from HCFC 141b to pentane
Subsector/application	PU foam
Alternative(s)	Cyclopentane
Funding requested (US $)	284,998 (i.e., 242,198 project cost plus 42,800 project preparation)

Description: Evaluate the advantages of VAI production process when using cyclopentane as a foam blowing agent, and demonstrate improved safety of foaming operations in an enterprise manufacturing commercial refrigeration equipment.	
Assessment: The project could facilitate the conversion from HCFC-141b to cyclopentane, reduce safety related costs, and reduce foam density relative to HCFC-141b-blown foam and hence operating costs. The VAI technology has been used in several countries, including at least one Article 5 country. All HCFC-141b consumption eligible for funding has been funded in stage I of the HPMP for South Africa.	
Country	Thailand (ExCom/76/50)
Implementing Agency	World Bank
Project title	Demonstration project at foam system houses in Thailand to formulate pre blended polyol for spray polyurethane foam applications using low GWP blowing agent
Subsector/application	Rigid PU foam: spray foam
Alternative(s)	HFO-1233zd (E), HFO-1336mzz(Z), HFO co-blown with CO_2
Funding requested (US $)	409,329 (i.e., 377,229 project cost plus 32,100 project preparation)
Description: Strengthen the capacity of two local system houses to formulate, test, and produce pre-blended polyol using HFOs for SMEs; to validate and optimize the use of HFOs co-blown with CO_2 for spray foam applications to achieve a similar thermal performance to that of HCFC-141b with minimum incremental operating costs; to prepare a cost analysis of the different HFO-reduced formulations versus the HCFC-141b based formulations; and to disseminate the results of the assessment to systems houses in Thailand and other countries.	
Assessment: The project will increase current knowledge in the application of reduced HFO formulations in a sector where Article 5 countries have identified challenges given the limitations to use flammable blowing agents. By optimizing reduced-HFO formulations with the support from two local systems it is expected to reduce operating costs for SMEs, in particular, reduced formulations at 25 or 10 per cent of HFO. Furthermore, the project is linked to the HPMP for Thailand; and the potential to be replicated in the country and the region is demonstrated. The phase-out associated with this project is 3.88 ODP tonnes of HCFC-141b.	
REFRIGERATION SERVICING SECTOR	
Country	Maldives (ExCom/76/40)
Implementing Agency	UNDP
Project title	Demonstration project for HCFC-free low-GWP alternatives in refrigeration in the fisheries sector
Subsector/application	Refrigeration in the fisheries sector
Alternative(s)	HFOs or HFO blends
Funding requested (US $)	169,740 (i.e., 153,690 project cost plus 16,050 project preparation)
Description: Identify low-GWP alternative technologies to HCFCs for use in refrigeration equipment with a charge of 150 kg to 200 kg of refrigerant in the fisheries sector. The beneficiary enterprise will be selected during project implementation.	
Assessment: The project has been linked with the HPMP for Maldives. If proven successful, it will provide a technology solution to replace HCFC-22 used in refrigeration systems in fishing vessels. The technology has never been tested in any country and will provide a viable low-GWP alternative for use in the fisheries industry.	
Country	Region: Europe (ExCom/76/57)
Implementing Agency	Russian Federation
Project title	Development of international regional centre of excellence for training and certification and demonstration of low-global warming potential alternative refrigerants
Subsector/application	Refrigeration servicing
Alternative(s)	n/a

Funding requested (US $)	720,176 (i.e., 666,676 project cost plus 53,500 project preparation)
Description: Improve the technical capacity of the refrigeration and air-conditioning sectors, assist to overcome barriers to the adoption of low-GWP refrigerants, improve service practice, and reduce emissions of refrigerants; provide expert advice on redesign of refrigeration and air-conditioning equipment to improve energy efficiency and life cycle climate impact; and assistance in policy development to harmonize regulations with the European Union F-gas regulations; establish small demonstration projects to promote ozone and climate safe refrigeration and foam alternatives; and disseminate information on new technologies.	
Assessment: Implementation of the project could benefit countries in the Europe and Central Asia region by improving refrigeration servicing practices and elevating these to an international standard through the centre's operation. However, it does not demonstrate new low-GWP alternatives. There are no HCFC reductions in the countries associated with the project.	
Country	Global (ExCom/76/56)
Implementing Agencies	UNIDO, UNEP
Project title	Demonstration project on refrigerant quality, containment and introduction of low-global-warming potential (GWP) refrigerants
Subsector/application	Refrigeration servicing
Alternative(s)	n/a
Funding requested (US $)	1,187,557 (i.e., 1,027,057 project cost plus 160,500 project preparation)
Description: The project consists of the following sub-projects: holistic approach for the improvement the level of the refrigeration servicing sector, to be implemented in the former Yugoslav Republic of Macedonia; refrigerant containment and refrigerant leakage prevention–based on Real Zero initiative, to be implemented in Egypt; innovative scheme for the minimization of refrigerant waste and the safe management of recovered refrigerants, to be implemented in Mexico; safe handling of low-GWP flammable refrigerants, to be implemented in five countries of the Caribbean region (the Bahamas, Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Suriname); and standards and market availability of quality refrigerants, to be implemented in six countries of the East African region (Eritrea, Kenya, Uganda, the United Republic of Tanzania, and Zambia).	
Assessment: The refrigeration servicing sector was not one of the priority sectors for the demonstration project funding window. However, some of the components seem to have a demonstration value for the proper introduction of low-GWP alternatives in Article 5 countries. Although extensive work has been done under the HPMPs on leakage control and refrigerant containment, the application of schemes to minimize refrigerant waste and the Real Zero approach may be useful. The project will be implemented in several countries and the activities proposed are linked to their HPMPs.	
PROJECTS APPROVED AT THE 75TH MEETING (FOR REFERENCE)	
Country	Colombia (ExCom/75/42)
Implementing Agency	UNDP
Project title	Demonstration project for the use of HC-290 (propane) as an alternative refrigerant in commercial air conditioning manufacturing at Industrias Thermotar ltda
Subsector/application	Commercial AC
Alternative(s)	HC-290
Funding requested (US $)	535,000 (prepared without funding for project preparation)
Description: Demonstrate the use of HC-290 (propane) in commercial air-conditioning equipment with a capacity between 3.5-17.5 kW, contributing to the phase-out of HCFC-22 use in the RAC subsector. Design, construct and test prototypes; carry out a safety risk assessment; convert a commercial air-conditioning production line for to HC-290; and training for operators and technical assistance to end-users.	
Assessment: Development of HC-290 commercial AC equipment with this cooling capacity would be a novel development. The enterprise may include design optimization to enhance the energy efficiency of units. The project will prepare a report with lessons learned and approaches to replicate the technology in other enterprises in the country and the region. The project will result in the phase-out of 0.73 ODP tonnes of HCFC-22.	

Country	Morocco (ExCom/75/58)
Implementing Agency	UNIDO
Project title	Demonstration of the use of low cost pentane foaming technology for the conversion to non-ODS technologies in polyurethane foams at small and medium enterprises
Subsector/application	Rigid PU foam: several
Alternative(s)	Pentane
Funding requested (US $)	342,935 (i.e., 300,135 project cost plus 42,800 project preparation)
Description: Develop and validate low-cost pentane foam technology through the design of a standardized and easy-to-handle compact foaming machine capable of operating with flammable blowing agents. Additional reduction in costs will be realized through the design of movable ventilation systems and the use of pre-blended polyol systems.	
Assessment: The project addresses the issue of high capital cost required for the applicability of pentane foam technology particularly in SMEs. If successful, the project has a potential for replication in several Article 5 countries. There is no direct phase-out of HCFCs; however, the enterprise selected will be converted using the alternative technology (if the demonstration is successful) together with other SMEs in stage II of the HPMP in Morocco.	

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
ALBANIA						
SEVERAL						
Ozone unit support						
Renewal of institutional strengthening project (phase VII: 7/2016-6/2018)	UNEP		$139,776	$0	$139,776	
Total for Albania			**$139,776**		**$139,776**	
ARGENTINA						
SEVERAL						
Ozone unit support						
Extension for institutional strengthening project (phase IX: 7/2016-6/2018)	UNDP		$398,806	$27,916	$426,722	
Total for Argentina			**$398,806**	**$27,916**	**$426,722**	
ARMENIA						
SEVERAL						
Ozone unit support						
Extension of institutional strengthening project (phase V: 4/2017-3/2019)	UNIDO		$153,600	$10,752	$164,352	
Total for Armenia			**$153,600**	**$10,752**	**$164,352**	
BAHRAIN						
SEVERAL						
Ozone unit support						
Extension of institutional strengthening project (phase VIII: 5/2016-4/2018)	UNEP		$85,000	$0	$85,000	
Total for Bahrain			**$85,000**		**$85,000**	
BELIZE						
SEVERAL						
Ozone unit support						
Renewal of institutional strengthening project (phase VIII: 4/2016-3/2018)	UNEP		$98,176	$0	$98,176	
Total for Belize			**$98,176**		**$98,176**	
BHUTAN						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (third tranche)	UNEP	0.2	$84,000	$10,920	$94,920	
Approved on the understanding that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Bhutan was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
HCFC phase-out management plan (third tranche)	UNDP	0.1	$57,000	$5,130	$62,130	
Approved on the understanding that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Bhutan was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
Total for Bhutan		**0.3**	**$141,000**	**$16,050**	**$157,050**	
BOSNIA AND HERZEGOVINA						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche) (activities in the refrigeration servicing sector including policy actions)	UNIDO		$117,692	$8,238	$125,930	
Total for Bosnia and Herzegovina			**$117,692**	**$8,238**	**$125,930**	
BOTSWANA						
SEVERAL						
Ozone unit support						
Extension of institutional strengthening project (phase V: 6/2016-7/2018)	UNEP		$100,061	$0	$100,061	
Total for Botswana			**$100,061**		**$100,061**	
BRUNEI DARUSSALAM						
SEVERAL						
Ozone unit support						
Renewal of the institutional strengthening project (phase V: 1/2017-12/2018)	UNEP		$89,600	$0	$89,600	
Total for Brunei Darussalam			**$89,600**		**$89,600**	
CAMBODIA						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (third tranche)	UNDP		$100,000	$7,500	$107,500	
Approved on the understanding that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Cambodia was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
HCFC phase-out management plan (third tranche)	UNEP		$150,000	$19,500	$169,500	
Approved on the understanding that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Cambodia was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
Total for Cambodia			**$250,000**	**$27,000**	**$277,000**	

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
CAMEROON						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (refrigeration servicing sector plan) (stage I, third tranche)	UNIDO		$59,136	$4,435	$63,571	
Total for Cameroon			**$59,136**	**$4,435**	**$63,571**	
CHAD						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNEP		$45,000	$5,850	$50,850	
Approved on the understanding that if Chad 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 that 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 Chad was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
HCFC phase-out management plan (stage I, third tranche)	UNIDO	2.4	$100,000	$7,500	$107,500	
Approved on the understanding that if Chad 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 that 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 Chad was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
Total for Chad		**2.4**	**$145,000**	**$13,350**	**$158,350**	
CONGO						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNIDO	1.8	$75,000	$6,750	$81,750	
Approved on the understanding that 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 the Congo was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
HCFC phase-out management plan (stage I, third tranche)	UNEP		$40,000	$5,200	$45,200	
Approved on the understanding that 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 the Congo was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
Total for Congo		**1.8**	**$115,000**	**$11,950**	**$126,950**	
DJIBOUTI						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, second tranche)	UNEP		$18,500	$2,405	$20,905	
Total for Djibouti			**$18,500**	**$2,405**	**$20,905**	
ECUADOR						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNIDO		$86,500	$6,487	$92,987	
HCFC phase-out management plan (stage I, third tranche)	UNEP		$30,000	$3,900	$33,900	
SEVERAL						
Ozone unit support						
Extension of institutional strengthening project (phase VI: 5/2016-4/2018)	UNEP		$226,305	$0	$226,305	
Total for Ecuador			**$342,805**	**$10,387**	**$353,192**	
EGYPT						
SEVERAL						
Ozone unit support						
Extension of the institutional strengthening project (phase XI: 1/2017-12/2018)	UNIDO		$292,253	$20,458	$312,711	
Total for Egypt			**$292,253**	**$20,458**	**$312,711**	
GHANA						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, fourth tranche)	Italy		$65,000	$8,450	$73,450	
Approved on the understanding that the approved funds will not be transferred to UNDP and the Government of Italy until the Secretariat has reviewed the verification report and confirmed that the Government of Ghana is in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
HCFC phase-out management plan (stage I, fourth tranche)	UNDP		$195,000	$14,625	$209,625	
Approved on the understanding that the approved funds will not be transferred to UNDP and the Government of Italy until the Secretariat has reviewed the verification report and confirmed that the Government of Ghana is in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
SEVERAL						
Ozone unit support						
Extension of the institutional strengthening project (phase XII: 1/2017-12/2018)	UNDP		$178,048	$12,463	$190,511	
Total for Ghana			**$438,048**	**$35,538**	**$473,586**	
HAITI						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, second tranche)	UNDP	0.4	$97,119	$8,741	$105,860	
Approved on the understanding that if Haiti 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 that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Haiti was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
HCFC phase-out management plan (stage I, second tranche)	UNEP		$30,000	$3,900	$33,900	
Approved on the understanding that if Haiti 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 that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Haiti was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
Total for Haiti		**0.4**	**$127,119**	**$12,641**	**$139,760**	

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
HONDURAS						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNEP		$50,000	$6,500	$56,500	
Approved on the understanding that if Honduras 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; that the Treasurer will not disburse the funding for UNEP until confirmation was received at the Secretariat that the agreement between the Government of Honduras and UNEP related to the second tranche of stage I of the HPMP had been signed and implementation progress under the second tranche has been reported; and that UNIDO will assist the Government to address the issues identified in the verification report and to report back to the Executive Committee when the fourth tranche of the HPMP is submitted.						
HCFC phase-out management plan (stage I, third tranche)	UNIDO		$90,000	$6,750	$96,750	
Approved on the understanding that if Honduras 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; that the Treasurer will not disburse the funding for UNEP until confirmation was received at the Secretariat that the agreement between the Government of Honduras and UNEP related to the second tranche of stage I of the HPMP had been signed and implementation progress under the second tranche has been reported; and that UNIDO will assist the Government to address the issues identified in the verification report and to report back to the Executive Committee when the fourth tranche of the HPMP is submitted.						
Total for Honduras			**$140,000**	**$13,250**	**$153,250**	
INDIA						
SEVERAL						
Ozone unit support						
Extension of institutional strengthening project (phase X: 4/2016-3/2018)	UNDP		$477,734	$33,441	$511,175	
Total for India			**$477,734**	**$33,441**	**$511,175**	
IRAQ						
SEVERAL						
Ozone unit support						
Extension of institutional strengthening project (phase III: 5/2016-4/2018)	UNEP		$307,200	$0	$307,200	
Total for Iraq			**$307,200**		**$307,200**	

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
JAMAICA						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNEP	0.4	$31,000	$4,030	$35,030	
Approved on the understanding that if Jamaica 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.						
HCFC phase-out management plan (stage I, third tranche)	UNDP		$183,000	$13,725	$196,725	
Approved on the understanding that if Jamaica 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.						
Total for Jamaica		**0.4**	**$214,000**	**$17,755**	**$231,755**	
JORDAN						
SEVERAL						
Technical assistance/support						
Survey of ODS alternatives at the national level	IBRD		$110,000	$9,900	$119,900	
Approved on the understanding that the final report of the survey would be submitted to the Secretariat no later than 1 January 2017.						
Total for Jordan			**$110,000**	**$9,900**	**$119,900**	
KIRIBATI						
SEVERAL						
Ozone unit support						
Renewal of institutional strengthening project (phase VI: 12/2016-11/2018)	UNEP		$85,000	$0	$85,000	
Total for Kiribati			**$85,000**		**$85,000**	
KUWAIT						
SEVERAL						
Ozone unit support						
Extension of institutional strengthening project (phase VI: 5/2016-4/2018)	UNEP		$134,810	$0	$134,810	
Total for Kuwait			**$134,810**		**$134,810**	
LAO, PDR						
SEVERAL						
Ozone unit support						
Renewal of the institutional strengthening project (phase VIII: 12/2016-11/2018)	UNEP		$85,000	$0	$85,000	
Total for Lao, PDR			**$85,000**		**$85,000**	

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
MADAGASCAR						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNIDO	2.8	$120,000	$9,000	$129,000	
Noted that the Agreement between the Government and the Executive Committee had been updated based on the revised Montreal Protocol limits only. Approved on the understanding that if Madagascar 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.						
HCFC phase-out management plan (stage I, third tranche)	UNEP		$60,000	$7,800	$67,800	
Noted that the Agreement between the Government and the Executive Committee had been updated based on the revised Montreal Protocol limits only. Approved on the understanding that if Madagascar 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.						
Total for Madagascar		**2.8**	**$180,000**	**$16,800**	**$196,800**	
MALAWI						
SEVERAL						
Ozone unit support						
Extension of institutional strengthening project (phase X: 4/2016-3/2018)	UNEP		$85,418	$0	$85,418	
Total for Malawi			**$85,418**		**$85,418**	
MALI						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNDP	2.6	$92,000	$6,900	$98,900	
Approved on the understanding that if Mali 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 that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Mali was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
HCFC phase-out management plan (stage I, third tranche)	UNEP		$80,000	$10,400	$90,400	
Approved on the understanding that if Mali 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 that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Mali was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
Total for Mali		**2.6**	**$172,000**	**$17,300**	**$189,300**	
MOZAMBIQUE						
SEVERAL						
Ozone unit support						
Extension of the institutional strengthening project (phase VII: 4/2016-3/2018)	UNEP		$103,424	$0	$103,424	
Total for Mozambique			**$103,424**		**$103,424**	
NIGERIA						
SEVERAL						
Ozone unit support						
Extension of the institutional strengthening project (phase X: 12/2016-11/2018)	UNDP		$332,800	$23,296	$356,096	
Total for Nigeria			**$332,800**	**$23,296**	**$356,096**	
SAO TOME AND PRINCIPE						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNEP		$35,000	$4,550	$39,550	
Approved on the understanding that if Sao Tome and Principe 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 that the approved funds would not be transferred to UNEP until the Secretariat had reviewed the verification report and confirmed that the Government of Sao Tome and Principe was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
SEVERAL						
Ozone unit support						
Extension of the institutional strengthening project (phase V: 7/2016-6/2018)	UNEP		$85,000	$0	$85,000	
Total for Sao Tome and Principe			**$120,000**	**$4,550**	**$124,550**	

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
SIERRA LEONE						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNEP		$20,000	$2,600	$22,600	
Approved on the understanding that if the country 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.						
HCFC phase-out management plan (stage I, third tranche)	UNIDO	0.2	$50,000	$4,500	$54,500	
Approved on the understanding that if the country 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.						
Total for Sierra Leone		**0.2**	**$70,000**	**$7,100**	**$77,100**	
SOUTH AFRICA						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche) (polyurethane foam sector plan)	UNIDO	21.0	$622,437	$43,571	$666,008	
Approved on the understanding that the approved funds would not be transferred to UNIDO until the Secretariat had reviewed the verification report and confirmed that the Government of South Africa was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
HCFC phase-out management plan (stage I, third tranche) (refrigeration servicing, custom training and monitoring)	UNIDO	6.4	$679,898	$47,593	$727,491	
Approved on the understanding that the approved funds would not be transferred to UNIDO until the Secretariat had reviewed the verification report and confirmed that the Government of South Africa was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.						
Total for South Africa		**27.4**	**$1,302,335**	**$91,164**	**$1,393,499**	
SOUTH SUDAN						
SEVERAL						
Ozone unit support						
Institutional strengthening project (phase I: 5/2016-4/2018)	UNEP		$85,000	$0	$85,000	
Total for South Sudan			**$85,000**		**$85,000**	
SRI LANKA						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNEP	1.3	$75,100	$9,763	$84,863	

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
HCFC phase-out management plan (stage I, third tranche)	UNDP	2.1	$127,766	$9,582	$137,348	
SEVERAL						
Ozone unit support						
Extension of the institutional strengthening project (phase XI: 1/2017-12/2018)	UNDP		$171,592	$12,011	$183,603	
Total for Sri Lanka		**3.4**	**$374,458**	**$31,356**	**$405,814**	
TANZANIA						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, second tranche)	UNEP	0.2	$33,000	$4,290	$37,290	
Approved on the understanding that if the United Republic of Tanzania 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.						
HCFC phase-out management plan (stage I, second tranche)	UNIDO	0.2	$50,000	$4,500	$54,500	
Approved on the understanding that if the United Republic of Tanzania 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.						
Total for Tanzania		**0.4**	**$83,000**	**$8,790**	**$91,790**	
TIMOR LESTE						
SEVERAL						
Ozone unit support						
Extension of institutional strengthening (phase IV: 1/2017-12/2018)	UNEP		$85,000	$0	$85,000	
Total for Timor Leste			**$85,000**		**$85,000**	
TUNISIA						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, second tranche) (residential air-conditioning manufacturing sector plan)	UNIDO	1.5	$356,396	$24,948	$381,344	
HCFC phase-out management plan (stage I, second tranche) (refrigeration servicing sector, project management and audit)	UNIDO	0.8	$122,500	$8,575	$131,075	
HCFC phase-out management plan (stage I, second tranche) (residential air-conditioning manufacturing sector plan)	France	1.5	$356,397	$45,144	$401,541	

Project Title	Agency	ODP (tonnes)	Funds recommended (US$) Project	Support	Total	C.E. (US$/kg)
HCFC phase-out management plan (stage I, second tranche) (refrigeration servicing sector)	France	0.5	$38,000	$4,813	$42,813	
HCFC phase-out management plan (stage I, second tranche) (refrigeration servicing sector)	UNEP	0.7	$55,000	$7,150	$62,150	
Total for Tunisia		**5.0**	**$928,293**	**$90,630**	**$1,018,923**	
TURKMENISTAN						
PHASE-OUT PLAN						
HCFC phase out plan						
HCFC phase-out management plan (stage I, third tranche)	UNIDO	1.7	$215,250	$16,144	$231,394	
Total for Turkmenistan		**1.7**	**$215,250**	**$16,144**	**$231,394**	
TUVALU						
SEVERAL						
Ozone unit support						
Extension of the institutional strengthening project (phase VI: 1/2017-12/2018)	UNEP		$85,000	$0	$85,000	
Total for Tuvalu			**$85,000**		**$85,000**	
GRAND TOTAL		**48.7**	**$8,887,294**	**$582,596**	**$9,469,890**	