UNITED NATIONS

EP

United Nations Environment Programme

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/75/28
30 October 2015

ORIGINAL: ENGLISH

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

BILATERAL COOPERATION

1. The Secretariat received the following request for bilateral cooperation:

PROJECT TITLE	BILATERAL AGENCY
HCFC phase-out management plan (stage I, third tranche) in Kenya	France
Preparation of a HCFC phase-out management plan (stage II) in Kenya	France
HCFC phase-out management plan (stage I, fifth tranche) (refrigeration servicing sector) in Brazil	Germany
HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector) in Brazil	Germany
HCFC phase-out management plan (stage I, fifth tranche) (extruded polystyrene foam sector plan) in China	Germany
HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector) in Colombia	Germany
Survey of ODS alternatives at the national level in Colombia	Germany
HCFC phase-out management plan (stage I, third tranche) (refrigeration servicing sector) in India	Germany
Survey of ODS alternatives at the national level in Mauritius	Germany
Verification report for stage I of HCFC phase-out management plan in Mauritius	Germany
Survey of ODS alternatives at the national level in Papua New Guinea	Germany
HCFC phase-out management plan (third tranche) in Seychelles	Germany
Verification report for stage I of HCFC phase-out management plan in Seychelles	Germany
HCFC phase-out management plan (stage I, third tranche) (refrigeration servicing sector) in Zimbabwe	Germany
Verification report for stage I of HCFC phase-out management plan in Zimbabwe	Germany
HCFC phase-out management plan (stage II, first tranche) (polyurethane foam sector) in Brazil	Italy
HCFC phase-out management plan (stage I, fifth tranche) (refrigeration servicing sector including enabling programme) in China	Japan
Project preparation for demonstration of low-global warming potential technologies performance in air-conditioning applications in Federated States of Micronesia	Japan

2. This document provides an overview of requests from bilateral agencies, and whether these are eligible in light of the maximum level of bilateral cooperation available for 2015. It cross-references relevant meeting documents that include a discussion on the bilateral requests, and contains the recommendation on the year of assignment for bilateral cooperation.

Overview

3. A total of 18 projects for bilateral cooperation with a value of US $5,424,217 (including agency fees) has been submitted to the 75th meeting as shown in Table 1.

Table 1. Projects for bilateral cooperation, submitted to the 75th meeting

Bilateral Agency	Amount Requested (US$)*	Number of Projects
France	265,396	2
Germany	4,909,076	13
Italy	113,000	1
Japan	136,745	2
Total	**5,424,217**	**18**

* Including agency support costs

Request from the Government of France

4. Table 2 provides a summary of the request for bilateral co-operation from the Government of France. The value of France's request (US $265,396) plus US $45,765 approved at the 74th meeting, does not exceed the 20 per cent of France's 2015 bilateral contribution of US $2,260,651.

Table 2. Projects submitted by the Government of France

Project Title	Country	Amount Requested (US$)	Amount Recommended (US$)
HCFC phase-out management plan (stage I, third tranche)	Kenya	176,250	(1)
Preparation of a HCFC phase-out management plan (stage II)	Kenya	60,000	60,000
Agency support costs		29,146	
Total		**265,396**	

(1) UNEP/OzL.Pro/ExCom/75/51

Kenya: HCFC phase-out management plan (stage I, third tranche)(US $176,250)

5. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/51.

Kenya: Preparation of a HCFC phase-out management plan (stage II)(US $60,000)

Project description

6. The Government of France, on behalf of the Government of Kenya, has submitted a request for the preparation of stage II of the HPMP at the level of funding of US $60,000. The submission included a justification for the requested funding, the activities to be implemented and the corresponding budget. Stage I of the HPMP for Kenya was approved at the 66th meeting to reduce HCFC consumption by 21.1 per cent of its baseline consumption by 2017.

Secretariat's comments

7. The request is within the limits set by decision 71/42(d), based on the remaining eligible HCFC consumption of 41.2 ODP tonnes[1]. The Secretariat noted that a tranche request for stage I of the HPMP[2] for Kenya has been submitted to the 75th meeting. The activities under the previous tranches appear to be progressing well, and implementation continues to be on target. Stage II of the HPMP for Kenya is planned to meet the 21.1 per cent reduction target by 2017.

Secretariat's recommendation

8. The Secretariat recommends blanket approval of the request for project preparation for stage II of the HCFC phase-out management plan, for Kenya at the level of funding indicated in Table 2.

Request from the Government of Germany

9. Table 3 provides a summary of the request for bilateral co-operation from the Government of Germany. The value of Germany's request (US $4,909,076), combined with the amount approved[3] at the 73rd and 74th meetings and assigned to Germany's bilateral contribution for 2015, exceeds the 20 per cent of Germany's 2015 bilateral contribution of US $2,886,342 but is within the 2015-2017 20 per cent allocation for the triennium (US $8,659,025).

Table 3. Projects submitted by the Government of Germany

Project Title	Country	Amount Requested (US$)	Amount Recommended (US$)
HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector)	Brazil	2,427,273	(1)
HCFC phase-out management plan (stage I, fifth tranche) (refrigeration servicing sector)	Brazil	409,091	(1)
HCFC phase-out management plan (stage I, fifth tranche) (extruded polystyrene foam sector)	China	500,000	(2)
Survey of ODS alternatives at the national level	Colombia	65,000	65,000
HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector)	Colombia	308,600	(3)
HCFC phase-out management plan (stage I, third tranche) (refrigeration servicing sector)	India	199,440	(4)
Survey of ODS alternatives at the national level	Mauritius	70,000	70,000
Verification report for stage I of HCFC phase-out management plan	Mauritius	30,000	30,000
Survey of ODS alternatives at the national level	Papua New Guinea	40,000	40,000
HCFC phase-out management plan (third tranche)	Seychelles	180,000	(5)
Verification report for stage I of HCFC phase-out management plan	Seychelles	30,000	30,000
HCFC phase-out management plan (stage I, third tranche) (refrigeration servicing sector)	Zimbabwe	112,000	(6)
Verification report for stage I of HCFC phase-out management plan	Zimbabwe	30,000	30,000
Agency support costs		507,672	34,450
TOTAL		**4,909,076**	**299,450**

(1) UNEP/OzL.Pro/ExCom/75/40
(2) UNEP/OzL.Pro/ExCom/75/41
(3) UNEP/OzL.Pro/ExCom/75/42
(4) UNEP/OzL.Pro/ExCom/75/48
(5) UNEP/OzL.Pro/ExCom/75/65
(6) UNEP/OzL.Pro/ExCom/75/75

[1] Kenya may receive up to a maximum of US $60,000 for the overarching strategy of stage II of the HPMP.
[2] UNEP/OzL.Pro/ExCom/75/51.
[3] An amount of US $659,452 approved at the 73rd meeting and US $323,021 at the 74th meeting was assigned to 2015 Germany bilateral contribution.

Brazil: HCFC phase-out management plan (stage I, fifth tranche) (refrigeration servicing sector) (US $409,091)

Brazil: HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector) (US $2,427,273)

10. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/40.

China: HCFC phase-out management plan (stage I, fifth tranche) (extruded polystyrene foam sector plan) (US $500,000)

11. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/41.

Colombia: HCFC phase-out management plan (stage II, first tranche) (refrigeration servicing sector) (US $308,600)

12. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/42.

India: HCFC phase-out management plan (stage I, third tranche) (refrigeration servicing sector) (US $199,440)

13. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/48.

Seychelles: HCFC phase-out management plan (third tranche) (US $180,000)

14. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/65.

Zimbabwe: HCFC phase-out management plan (stage I, third tranche) (refrigeration servicing sector) (US $112,000)

15. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/75.

Technical assistance for preparation for national surveys on ODS alternatives

Colombia: Survey of ODS alternatives at the national level (US $65,000)

Mauritius: Survey of ODS alternatives at the national level (US $70,000)

Papua New Guinea: Survey of ODS alternatives at the national level (US $40,000)

Project description

16. The Government of Germany has submitted funding requests to conduct national surveys on alternatives to ODS for Colombia, Mauritius, and Papua New Guinea in response to paragraph 4 of decision XXVI/9. The objective of the surveys would be to assist these Article 5 countries to better understand the consumption trends for non ODS alternatives, and the distribution by sector and subsector.

Secretariat's comments

17. The Secretariat noted that the funding requests are in line with decision 74/53(d). In the case of Colombia, the Government of Germany is requesting half of the funding it is eligible for, to account for an inventory of the HFC consumption completed with funding from the Climate and Clean Air Coalition to Reduce Short Lived Climate Pollutants (CCAC).

Secretariat's recommendation

18. The Secretariat recommends blanket approval of the requests for national surveys of ODS alternatives in Colombia, Mauritius, and Papua New Guinea at the level of funding indicated in Table 3, noting that in the case of Colombia, the funding requested had taken into account a completed survey funded outside the Multilateral Fund.

Technical assistance to prepare verification reports on HCFC consumption

Mauritius: Verification report for stage I of HPMP (US $30,000)

Seychelles: Verification report for stage I of HPMP (US $30,000)

Zimbabwe: Verification report for stage I of HPMP (US $30,000)

Project description

19. The Executive Committee, in decision 74/22, requested relevant bilateral and implementing agencies include in their respective work programmes for submission to the 75th meeting, funding for verification reports for stage I of the HPMPs for inter alia, Mauritius, Seychelles and Zimbabwe. The Government of Germany, as the lead implementing agency, submitted funding requests for technical assistance for the preparation of verification reports of stage I of the HPMP for these two countries in line with this decision.

Secretariat's comments

20. The Secretariat noted that the funding requested by the Government of Germany for each of the countries was consistent with the funds approved by the Executive Committee for similar verifications in previous meetings. It further noted that verification reports for these countries have to be submitted at least 60 days prior to the applicable Executive Committee meeting where future tranche requests for their HPMP is being sought.

Secretariat's recommendation

21. The Secretariat recommends blanket approval for the verification reports on the implementation of stage I of HCFC phase-out management plans (HPMPs) for Mauritius, Seychelles and Zimbabwe, at the level of funding indicated in Table 3, on the understanding that the verification reports should be submitted at least 60 days prior to the applicable Executive Committee meetings where the next funding tranche requests for their HPMPs are being sought.

Request from the Government of Italy

22. Table 4 provides a summary of the request for bilateral co-operation from the Government of Italy. The value of Italy's request (US $113,000) does not exceed the 20 per cent of Italy's 2015 bilateral contribution of US $1,797,850.

Table 4. Project submitted by the Government of Italy

Project Title	Country	Amount Requested (US$)	Amount Recommended (US$)
HCFC phase-out management plan (stage II, first tranche) (polyurethane foam sector)	Brazil	100,000	(1)
Agency support costs		13,000	
Total		**113,000**	

(1) UNEP/OzL.Pro/ExCom/75/40

23. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/40.

Request from the Government of Japan

24. Table 5 provides a summary of the request for bilateral co-operation from the Government of Japan. The value of this request (US $136,745) together with an amount of US $90,400 approved at the 74th meeting for 2015, does not exceed the 20 per cent of Japan's 2015 bilateral contribution (US $4,378,622).

Table 5. Project submitted by the Government of Japan

Project Title	Country	Amount Requested (US$)	Amount Recommended (US$)
HCFC phase-out management plan (stage I, fifth tranche) (refrigeration servicing sector including enabling programme)	China	80,000	(1)
Project preparation for demonstration of low-global warming potential technologies performance in air-conditioning applications	Federated States of Micronesia	41,013	(*)
Agency support costs		15,732	
Total		**136,745**	

(1) UNEP/OzL.Pro/ExCom/75/41
(*) Individual consideration

China: HCFC phase-out management plan (stage I, fifth tranche) (refrigeration servicing sector including enabling programme) (US $80,000)

25. The comments and recommendations of the Secretariat are found in document UNEP/OzL.Pro/ExCom/75/41.

Federated States of Micronesia: Preparation for a demonstration project for low-global warming potential (GWP) technologies performance in air-conditioning applications in the Federated States of Micronesia (US $41,013)

Project description

26. The Government of Japan, on behalf of the Government of the Federated States of Micronesia, submitted a funding request for preparation of a demonstration project to evaluate the performance of low-GWP air conditioning equipment in the country. This request is submitted in line with decisions 72/40 and 74/21.

27. The project objectives would be to install, monitor and evaluate performance (e.g., energy efficiency, cooling of the installed equipment); identify any issues faced during installation and maintenance of equipment; and provide training for technicians servicing this equipment. The project would include the installation of HFC-32 air-conditioning equipment (i.e., five HFC-32 split type units: three 12,000 BTU, two 24,000 BTU) supplied by Daikin, and a recovery machine in some buildings owned by the Government. There are currently 84 air-conditioning units operating on HCFC-22 in these buildings, with a capacity between 9,000 BTU and 24,000 BTU.

28. The submission included information on the concept of the project, the activities to be undertaken and the costs for implementation estimated at US $41,013. The Government of Japan also submitted an endorsement letter from the Government of the Federated States of Micronesia as the potential recipient of the demonstration project. The project proposal is contained in Annex I to the present document.

Secretariat's comments

29. At the 74th meeting, the Executive Committee considered the requests for preparation of projects to demonstrate low-GWP technologies and feasibility studies on district cooling pursuant to decision 72/40. At the same meeting, the Committee also allowed the submission of a limited number of additional requests for preparation of projects to demonstrate low-GWP technologies in the air-conditioning manufacturing sector (decision 74/12(d)). This proposal is being submitted in line with this decision, based on the criteria set out in decision 72/40.

30. The Secretariat sought clarification on the overall project concept; the use of Daikin equipment, whether this equipment was already commercially available, and what additional parameters would be evaluated noting that equipment specifications would already contain information on cooling capacities, performance and energy efficiency. In their response, the Government of Japan noted that although the equipment may already have information on performance, the project would ensure that this equipment could withstand the high humidity and heavy salt spray typical to the environment in the country which could affect equipment performance.

31. With regard to the training programme, the Secretariat asked why it could not be integrated into the current technician training programme under stage I of the HPMP. The Government of Japan clarified that there is no expertise available in the country for training on HFC-32 servicing; therefore training from the equipment manufacturer would be an essential aspect to the success of this project.

32. In order to assist the Executive Committee in selecting the demonstration project proposals that best meet the requirements of decision 74/21, the Secretariat had prepared an analysis of all demonstration project proposals submitted to the 75th meeting, under the document on the Overview of issues identified during project review[4].

Secretariat's recommendation

33. The Executive Committee may wish:

(a) To consider the request for preparation for a demonstration project to shift from high-global warming potential (GWP) to low-GWP refrigerants in the air-conditioning sector, in the Federated States of Micronesia, in the context of its discussion on additional proposals for preparation of projects to demonstrate low-GWP technologies in the air-conditioning manufacturing sector (decision 74/21(d)), as described in the document on the Overview of issues identified during project review (UNEP/OzL.Pro/ExCom/75/27); and

[4] UNEP/OzL.Pro/ExCom/75/27.

(b) To consider whether to approve the project preparation request mentioned in sub-paragraph (a) above, in the amount of US $41,013, plus agency support costs of US $5,332 for the Government of Japan.

GENERAL RECOMMENDATION

34. The Executive Committee may wish to request the Treasurer to offset the costs of the bilateral projects approved at the 75th meeting as follows:

(a) US $XX (including agency fees) against the balance of France's bilateral contribution for 2015;

(b) US $XX (including agency fees) against the balance of Germany's bilateral contribution for 2015-2017;

(c) US $XX (including agency fees) against the balance of the Italy's bilateral contribution for 2015; and

(d) US $XX (including agency fees) against the balance of Japan's bilateral contribution for 2015.

Annex I
Project preparation funding request

Project preparation request for demonstration project
Demonstration of low GWP technologies performance in air-conditioning
Applications in the Federated States of Micronesia

Project Title: Demonstration Project to shift from high GWP to low GWP refrigerants in the A/C sector

I. Introduction (no more than half a page)

At the current stage HCFC-22 is primarily used in these Pacific Islands for the air-conditioning equipment. Pacific Islands are known for its salt spray and humidity which contribute to the early deterioration of any types of equipment that are not designed to withstand salt spray and humidity. The deterioration is usually evident when corrosion is build up on any units installed outside of a building. As noted HCFC-22 is the primary used however there has been influx of HFC-410A which has high global warming potential. In order to comply with Montreal Protocol by shifting from high-GWP, to not only low-GWP technology but also energy efficiency and sustainability need to be taken into account. Among limited alternative technologies currently available in air-conditioning applications, HFC-32, low-GWP blends, has been chosen as a suitable candidate for testing actual operational performance under the weather conditions in the Federated States of Micronesia while R-290 was delisted due to its safety issues that required only certified technicians to handle. The HFC-32 is a non-ozone depleting substance and at the same time has low GWP of 675 as compared to other refrigerant currently available in the market.

The demonstration project will be held at the National Government buildings in Palikir, Pohnpei. While these buildings are separated from each other, the demonstration project is suitable to monitor and evaluate the energy efficiency of units installed in these separate buildings. Some of the national government offices/departments have installed over 60 A/C units running on both HCFC-22 and HFC-410a. These units are either split types or window type running between 8,000 to 24,000 BTU.

The demonstration project is a start and it is anticipated to be expanded to cover all national and state government buildings in all four states of the FSM. Upon successful completion of the demonstration project, FSM will opt to elevate to a full blown project proposal and continue to seek MLF financial assistance to cover all 4 states in the FSM. It is also anticipated that it will be expanded to nearby Pacific Islands where its market is viable and venture. With that in mind, distribution system needs to be established across the whole region.

II. Brief project summary (no more than 2-3 paragraphs)

The project would involve procurement, training and installation of HFC-32 air-conditioning equipment and recovery machine at the FSM National Government. There are currently 84 R22 A/C units which are between 9,000 BTU 24,000 BTU. These are mixture of both window and split type A/C.

The demonstration project will only look into the replacement of R22 A/C to R32 equipment that will be supplied by DAIKIN under this project proposal. All in all, this demonstration project will have a total of 5 R-32 Split type units, 3 of which are 12,000 BTU and 2 are 24,000 BTU.

The training of RAC technicians on R-32 equipment is mandatory and must be carried out prior to the commencement of the demonstration project. Also, training to the RAC technicians in Pohnpei is mandatory to handle the installation/testing and perform maintenance the A/C. The total number of RAC technicians to be trained is approximately 70. However, due to limited funding, 5 people will be picked from RAC association from each state including national government to be sent to overseas where facility and expertise are available to deliver the R32 technology. After the successful completion of the training,

the trainees will be able to train the remaining technicians in their respective states. Those who received the training from oversees will be responsible to conduct the replacement of R22 to R32 units. All equipment would be installed by a locally identified company for an identified technology option given that the company or RAC Association received training on installation and maintenance of R-32. This would be based on technology information research and market assessment of product, including system component, availability, performance under the conditions and servicing support availability by technical expert identified for this project.

The results of the demonstration project would be documented and publicised widely for information to other market players and consumers. The outreach plan will be finalised during the time when the project is initiated. In addition, the performance results would also be provided to the other Ozone Units during network meetings and international meetings on refrigeration and air-conditioning technologies.

III. Project objectives (summarized in bullet form)

- To install and provide performance results of air-conditioning equipment under the island weather conditions in FSM.
- To record the performance results such as energy efficiency, cooling performance and issues identified during installation and maintenance.
- To provide technical training for installation, testing, and maintenance.
- To avoid possible ODS emission and reduce GHG emission

IV. Expected demonstration results (no more than half a page)

- Product installation needs for such low GWP alternative under the island weather conditions. With the deterioration of R22 units still operating at the national government, it is highly likely that in due course, such units will start to leak and therefore require replacement to low GWP alternatives.
- Equipment resiliency in comparison with the ones currently in use. The replacement of R22 units with R32 units, will not only withstand the weather condition but prolong the life span of the equipment and reduce the incurring cost on services or maintenance.
- Product operational performance in terms of refrigerant leakage and servicing needs. With specification of the R32 units, it will immensely reduce the leakage rate and thus reduce cost as well.
- Cooling performance of product under the Island conditions.
- Energy efficiency performance under the Island weather conditions
- Safety standards that need to be followed for installation and servicing of equipment.

V. Institutional arrangements

a. Brief information on legal and regulatory support for the demonstration project

i. FSM has streamlined its policy on HFC phase down by submitting proposed amendment to the Montreal Protocol to gradually phase down the production and consumption of HFCs.

ii. The National Government is in the review process of putting a ban on importation of HFC refrigerants that has over 1500 GWP.

iii. At the current stage, there has been a proposed amendment to the current Ozone Depleting Substance regulation to ban the importation of HCFC-based equipment.

iv. Continuous educational awareness on ODP and GWP has resulted in the changes in the market where introduction of appliances charged with R-600a is already witnessed in the FSM. This trend indicated that the changes in the market are clearly shifting toward low GWP and will eventually ended up using natural refrigerants.

b. Description of implementation approach

The project would be managed by National Ozone Unit of FSM and would be directly supervised by the OEEM. NOU is currently looking for a suitable Implementing Agency that would support the NOU for implementation and completion of this project. Technical consultant(s) would be recruited for providing advisory support for the project and managing project activities. Once the full project is submitted, would seek support from Government of Japan as a bilateral agency supporting this project.

The Government provides a commitment to complete the project within 12 months from the date of approval of the project. The National Government is very enthusiastic about this initiatives and looking forward to witness the actual changes.

VI. Company information

Office of Environment and Emergency Management
National Government
P.O Box PS-69
Palikir, Pohnpei
Federated States of Micronesia
FM 96941
andrewy@mail.fm or tilson.kephas@yahoo.com

Project Cost

Description	Quantity	Unit Price	Total
Single Split R32 Inverter A/C Unit	-	-	**5,080.00**
Capacity 12000 BTU	3	580.00	1,740.00
Capacity 24000 BTU	2	1,670.00	3,340.00
Service Tools (1)-(5)	-	-	**7,200.00**
Gauge manifold/Charging hose (1)	5	140.00	700.00
Flare tools (2)	5	120.00	600.00
Torque wrench (3)	5	170.00	850.00
Cylinder adaptor (4)	5	10.00	50.00
Refrigerant recovery cylinder - 23 litter (5)	10	500.00	5,000.00
R32 Refrigerant for service	-	-	**262.50**
USD17.5/Kg x 3Kg per Cylinder (15Kg in Total)	5	52.5	262.50
Capacity Building for Installers	-	-	**21,380.00**
Overseas Training - 2 days	1	1,200.00	1,200.00
Airline ticket (Overseas Training)	5	2,500.00	12,500.00
DSA (Overseas Training)	5	1,536.00	7,680.00
Shipping and handling	-	-	**6,191.50**
R32 A/C	1	2,400.00	2,400.00
Service tools	1	3400.00	3400.00
R32 refrigerant	1	391.50	391.50
Local Port charge	-	-	**150.00**
$9.21 per RT	1	150.00	150.00
Custom Tax (4% of CIF)	-	-	**749.36**
R32 A/C	1	299.20	299.20
Service tools	1	424.00	424.00
R32 refrigerants	1	26.16	26.16
Total			**41,013.36**