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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-ninth Meeting
Bangkok, 3-7 July 2017

PROJECT PROPOSAL: SERBIA

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

Phase-out

- HCFC phase-out management plan (stage I, third tranche)

UNIDO and
UN Environment

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Serbia

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UN Environment, UNIDO (lead)	62nd	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2015	6.92 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2016	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22				0.98	4.95				5.93
HCFC-123			0.02						0.02
HCFC-141b					0.45				0.45

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:		8.4	Starting point for sustained aggregate reductions:
			8.37
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:		2.94	Remaining:
			5.43

(V) BUSINESS PLAN		2016	2017	2018	2019	2020	Total
UN Environment	ODS phase-out (ODP tonnes)	0	0	0	0	0	0.1
	Funding (US \$)	16,329	0	0	0	8,531	24,860
UNIDO	ODS phase-out (ODP tonnes)	0.2	0	0	0	0.1	0.3
	Funding (US \$)	72,885	0	0	0	27,628	100,513

(VI) PROJECT DATA			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			n/a	n/a	n/a	8.4	8.4	7.56	7.56	7.56	7.56	7.56	5.46	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	n/a	8.4	8.4	7.56	7.56	7.56	7.56	7.56	5.46	n/a
Agreed funding (US \$)	UN Environment	Project costs	26,000	0	0	27,500	0	0	14,450	0	0	0	7,550	75,500
		Support costs	3,380	0	0	3,575	0	0	1,879	0	0	0	981	9,815
	UNIDO	Project costs	360,130	0	0	444,130	0	0	67,800	0	0	0	25,700	897,760
		Support costs	27,010	0	0	33,310	0	0	5,085	0	0	0	1,928	67,333
Funds approved by ExCom (U S\$)	Project costs	386,130	0	0	471,630	0	0	0	0	0	0	0	0.0	857,760
	Support costs	30,390	0	0	36,885	0	0	0	0	0	0	0	0.0	67,275
Total funds requested for approval at this meeting (US \$)	Project costs									82,250*				82,250
	Support costs									6,964*				6,964

*The third tranche should have been submitted in 2016.

Secretariat's recommendation:	For blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Serbia, UNIDO as the lead implementing agency, has submitted to the 79th meeting a request for funding for the third tranche of stage I of the HCFC phase-out management plan (HPMP), at a total cost of US \$89,214, consisting of US \$67,800, plus agency support costs of US \$5,085 for UNIDO, and US \$14,450, plus agency support costs of US \$1,879 for United Nations Environment Programme (UN Environment).¹ The submission includes a progress report on the implementation of the second tranche, the verification report on HCFC consumption for 2014 and 2015 and the tranche implementation plan for 2017 to 2019.

Report on HCFC consumption

HCFC consumption

2. The Government of Serbia reported a consumption of 6.92 ODP tonnes of HCFC in 2015, and estimated a consumption of 6.4 ODP tonnes for 2016 which is 24 per cent below the HCFC baseline for compliance and 15 per cent below the maximum allowable consumption in the Agreement with the Executive Committee for 2016. The 2012-2016 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Serbia (2012-2016 Article 7 data)

HCFC	2012	2013	2014	2015	2016*	Baseline
Metric tonnes						
HCFC-22	169.1	137.21	133.23	114.52	107.82	141.0
HCFC-123	0.0	0.0	0.0	0.9	0.9	1.1
HCFC-141b	5.2	1.90	3.26	3.81	4.08	0.0
HCFC-142b	16.6	4.63	5.28	2.85	0.0	9.1
Total (metric tonnes)	190.9	143.74	141.77	122.08	112.8	151.2
ODP tonnes						
HCFC-22	9.30	7.55	7.33	6.30	5.93	7.76
HCFC-123	0.00	0.00	0.00	0.02	0.02	0.02
HCFC-141b	0.57	0.21	0.36	0.42	0.45	0.00
HCFC-142b	1.08	0.30	0.34	0.19	0.0	0.59
Total (ODP tonnes)	10.95	8.06	8.03	6.92	6.4	8.37

*Country programme data submitted on 1 May 2017.

3. Consumption of HCFC-22 decreased due to the conversions in the refrigeration and air-conditioning (RAC) manufacturing sector and implementation of activities in the servicing sector. HCFC-142b is imported as a blend (R-406a, consisting of 41 per cent HCFC-142b, 55 per cent HCFC-22 and 4 per cent R-600a), which is used as a drop-in for CFC-12-based equipment. Improved servicing practices and retirement of CFC-based equipment likely contributed to the decreased consumption and zero imports of R-406a in 2016. Serbia started consuming HCFC-141b in 2011 for flushing and cleaning; awareness-raising activities are targeting this consumption. A small amount of HCFC-123 was consumed in 2010, 2015 and 2016; this consumption was likely to service a small number of chillers with intermittent servicing needs.

Verification report

4. The third tranche of the HPMP of Serbia was expected to be submitted in 2016. The verification of consumption for 2014 and 2015 was completed on time; however, while the process for verifying the 2016 consumption has started, the 2016 verification report is expected to be submitted in September 2017.

¹ As per the letter of 18 April 2017 from the Ministry of Agriculture and Environmental Protection of Serbia to UNIDO.

5. The verification report for 2014 and 2015 confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs for 2015 was 6.92 ODP tonnes. The licensing system has been extended to include HFCs and HFC blends.

Country programme (CP) implementation report

6. The Government of Serbia reported HCFC sector consumption data under the 2015 CP implementation report which is consistent with the data reported under Article 7.

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

Legal framework

7. The only ODS for which imports are permitted are HCFCs. A license to import HCFCs is issued only if the applicant has been assigned the import quota for that year of import. Serbia did not report exports of HCFCs. The licensing system also includes HCFC-based equipment valid for the year in which the license is issued. The national custom codes are in compliance with the standards of the World Customs Organization, the European Union (EU), and the informal prior informed consent mechanism.

8. The regulation on certification of personnel performing certain activities related to controlled substances and certain fluorinated greenhouse gases (GHG) (Official Gazette of RS No. 24/16) was adopted in March 2016. It is partially aligned with EU regulations on minimum certification requirements for stationary refrigeration, air-conditioning (AC) and heat pump equipment, and minimum training requirements for the recovery of certain fluorinated GHG from AC systems in motor vehicles.

9. Draft amendments on the regulation on ODS management and on conditions for license issuance is under review, as to harmonize regulations with the EU. It includes a ban on new HCFC-based equipment and on the import of refrigerants in disposable cylinders by 1 January 2018, as well as restrictions on the use of high-GWP HFCs for certain uses.

10. Software for data collection and statistical processing was purchased and installed in 2016. It has been used to establish a database for registered users, service shops, service technicians and equipment containing refrigerants. To date, 741 pieces of equipment that contain more than 3 kg refrigerants have been entered into the database. The software allows for collection of information on equipment containing low-GWP refrigerants.

Manufacturing sector

11. The conversion of Alfa Klima to R-410A and Soko Inzinjering to R-410A and ammonia has been completed, with the phase-out 0.86 ODP tonnes of HCFC-22. The equipment for the conversion at Sena has been purchased with commissioning and training on-going; the equipment for EkoElktro Frigo was purchased, with delivery and commissioning expected in June 2017. The complete phase-out of 2.27 ODP tonnes of HCFC from the RAC manufacturing sector is expected in July 2017. Given the higher than expected capital cost of some items, UNIDO proposed to use approximately half of the budget allocated for incremental operating costs (IOCs) (US \$79,006), to cover those costs, in accordance with paragraph 7 of the Agreement and decision 60/44(f)(iii). This reallocation will leave a balance of US \$75,980 for IOCs.

Refrigeration servicing sector

12. A workshop for handling ODS and fluorinated alternatives for 19 trainers of service technicians was held. Procurement of additional equipment (e.g., tube bender, cutter, flare tools, HFC leak detectors, two-valve cylinders, portable refrigerant recovery units, and two-stage vacuum pumps) for the training

centres capable to handle fluorinated alternatives, in accordance with the requirements of the March 2016 regulation on certification of personnel, is ongoing. A refrigerant identifier was purchased in 2015 for the recovery and reclamation facility and the technical specifications for reclamation equipment have been developed. A workshop to train approximately 40 customs officers and environment inspectors is scheduled for June 2017. The training will focus on updates in the legislation and on practical inspection exercises (simulated inspections) of two to three industrial/commercial installations containing different refrigerants.

13. In cooperation with the Serbian RAC association (KGH), awareness-raising activities included organization of refrigeration roundtables and exhibition booths at the annual KGH congress in 2015 and 2016 that is attended by over 800 participants; and the publishing of “Ozone Pages” in the quarterly KGH journal.

Level of fund disbursement

14. As of April 2017, of the US \$857,760 so far approved, US \$565,255 had been disbursed (US \$531,151 for UNIDO and US \$34,104 for UN Environment) as shown in Table 2. The balance of US \$292,505 is expected to be disbursed in 2018.

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

Agency	First tranche		Second tranche		Total	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNIDO	360,130	353,844	444,130	177,307	804,260	531,151
UN Environment	26,000	23,648	27,500	10,456	53,500	34,104
Total	386,130	377,492	471,630	187,763	857,760	565,255
Disbursement rate (%)	98		40		66	

Implementation plan for the third tranche of the HPMP

15. The following activities will be implemented between July 2017 and December 2019:
- Improving the legislative framework by focusing on implementation and enforcement of newly-adopted legislation and on the electronic software for data collection and recording of the equipment containing more than 3 kg of refrigerant (UNIDO) (US \$10,000);
 - Continuing the training and certification of service technicians, the development of a manual for service technicians with theoretical and practical components in compliance with F-gas and natural refrigerants standards (UNIDO) (US \$57,800);
 - Organizing a set of one-day trainings for the customs officers on four main border crossings targeting 40 additional customs officers (UN Environment) (US \$6,950); and
 - Implementing public awareness activities such as refrigeration roundtables for alternative, ozone and climate friendly technologies, as part of the annual congress of KGH; and ozone pages in the KGH quarterly journal if budget permits (UN Environment) (US \$7,500).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Verification Report

16. As the third tranche was expected to be submitted in 2016, UNIDO had originally commissioned a verification report for 2014 and 2015, only. Given the delay to 2017, a 2016 verification is now required. UNIDO has started the process for compiling the 2016 verification report, which will be submitted by September 2017. Consistent with decision 72/19, the Secretariat could recommend the approval of the tranche on the understanding that the transfer of the funding to UNIDO would only occur after receipt by the Secretariat of the 2016 verification.

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

Legal framework

17. The Government of Serbia has already issued HCFC import quotas for 2017 at 6.72 ODP tonnes.

Manufacturing sector

18. The Secretariat recalled that the 2016 evaluation of the HCFC phase-out project in Serbia's RAC sector had indicated that the converted enterprises have manufactured RAC equipment using R-407C, R-507 and HFC-134a. Subsequent correspondence indicated that this RAC equipment was not manufactured using equipment funded by the project. UNIDO confirmed this understanding.

19. Noting that three of the four enterprises² had received funding to convert to both R-410A and ammonia, the Secretariat further requested clarification, in line with decision 77/35(a)(ii), on whether any of the enterprises that had received funding under the HPMP to manufacture products and equipment using substances with low-GWP were temporarily manufacturing products and/or equipment using high-GWP substances.

20. UNIDO confirmed that the three enterprises are able to manufacture low-GWP-based equipment, including ammonia and cascade systems. However, while the converted enterprises offer the equipment in their catalogue, to date they have not yet been able to sell any such equipment due to the higher cost of the equipment relative to high-GWP-based equipment. Such high-GWP-based systems were not manufactured using the equipment purchased under the HPMP; rather, the enterprises imported ready-made systems and components existing on the market for which assembly and commissioning was offered. The Government and KGH are actively promoting low-GWP-based systems, including through awareness-raising activities highlighting the energy efficiency and climate benefits of low-GWP-based systems. In addition, the draft amendments on the regulation on ODS management currently under review include restrictions on high-GWP HFCs for certain uses. One of the enterprises (Soko Inzinjering) will install a low-GWP-based cascade system at the faculty of mechanical engineering in Belgrade and will serve as a teaching tool. UNIDO confirmed that it would continue implementation of the remaining activities in line with decision 77/35(a)(vi).³

² Alfa Klima only received funding to convert to R-410A.

³ Not to pay any IOCs that had been approved for manufacturing enterprises until it had been verified that the enterprises were manufacturing products and/or equipment using the approved technology.

Conclusion

21. The HPMP is progressing, the country's import licensing and quota system is operational and will enable HCFC consumption reductions in line with the Montreal Protocol's phase-out schedule, and the verified 2014 and 2015, as well as the reported 2016 consumption are below that specified in the Montreal Protocol. As the third tranche submission was delayed, the 2016 verification has not yet been completed and is expected to be submitted in September 2017. The level of disbursement for the second tranche is 40 per cent, and 66 per cent of the overall funding approved. The conversions in the RAC manufacturing sector have progressed well; however, the converted enterprises have not yet been able to sell low-GWP-based equipment in the market. The Government and KGH are actively promoting low-GWP-based systems, including through awareness-raising activities and possible regulatory measures currently under consideration, and one such system will be installed for training purposes. The activities so far implemented and those planned under the third tranche will further strengthen the servicing sector, ensure the long-term sustainability of the activities, and continue to help enable the country to meet its compliance obligations under the Protocol.

RECOMMENDATION

22. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the second tranche of stage I of the HCFC phase-out management plan of (HPMP) for Serbia.

23. The Fund Secretariat, on an exceptional basis, further recommends blanket approval of the third tranche of stage I of the HPMP for Serbia, and the corresponding 2017-2019 tranche implementation plan, at the funding levels shown in the table below, on the understanding that:

- (a) The approved funds would not be transferred to UNIDO and UN Environment until the Secretariat had reviewed the verification report and confirmed that the Government of Serbia was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee; and
- (b) As part of its annual progress report UNIDO would report on the status of manufacturing of low-GWP systems at the converted refrigeration and air-conditioning manufacturing enterprises.

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage I, third tranche)	67,800	5,085	UNIDO
(b)	HCFC phase-out management plan (stage I, third tranche)	14,450	1,879	UN Environment