

**MONTREAL PROTOCOL
ON SUBSTANCES THAT DEplete
THE OZONE LAYER**



UNEP

Technology and Economic Assessment Panel

**ADDENDUM TO THE OCTOBER 2011 SUPPLEMENT TO THE REPORT
ON THE DETERMINATION OF THE FUNDING REQUIREMENT FOR THE
REPLENISHMENT OF THE MULTILATERAL FUND FOR THE
TRIENNium 2011-2014**

November 2011

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The opinions expressed are those of the Panel and its Task Force and do not necessarily reflect the reviews of any sponsoring or supporting organisation.

Addendum to the October 2011 Supplement to the Report on the Determination of the Funding Requirement for the Replenishment of the Multilateral Fund for the triennium 2011-2014

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1. TEAP's Replenishment Task Force (RTF) has received several enquiries from Parties regarding discrepancies in two numbers in the Supplement report (which have no impact on the RTF estimates of the funding requirements) and has also received a number of requests for clarifications. These matters are dealt with in this Addendum.

Figures in Table 3-2 and other clarifications

2. In line 6 of Table 3-2, 'Existing commitments for HPMPs', the figure of US\$ 337.71 million should be revised to US\$ 330.71 million. This brings the total in the table to US\$ 492.73 million, consistent with the figure appearing in Table 3-3. This clarification does not affect the estimated funding requirement.

3. In line 3 of Table 3-2, the figure for destruction was revised from US\$ 9 million (as given in the May 2011 RTF report) to US\$ 15.25 million, consistent with the approved Business Plan for 2011-2014. The original value of US\$ 9 million was earmarked for six destruction projects for which preparation funding had already been approved. The MLF Secretariat has subsequently confirmed that the total value of destruction projects included in the Business Plan 2011-2014 is US \$15.25 million, including the figure of US \$3 million that was approved as a window for LVCs in Decision 63/5(c). The remainder of the funding is for non-LVC countries.

4. Line 12 on page 4 should read, in relation to swing plants: "Compensation for these plants was included".

Shifting of funding tranches for production closure to future triennia

5. Reference is made on page 6 of the Supplement (see also Annex 1) to the request from Parties for investigation of options to shift production sector funding tranches to later years. The Task Force included in its analysis the option of funding the production sector in the first triennium at a reduced level of 10% of the baseline by 2015. This amounts to a delay in funding of the production sector relative to funding of the consumption sector. However the Task Force concluded that it would not be appropriate to extend this option at the present time because it was of the opinion that "shifting funding for production closure to later years" would be likely to exacerbate imbalances in funding levels across three triennia, as indicated below (which would be counter to the preference expressed by Parties for "stable" funding).

6. The funding requirements estimated for the three triennia (with production closure funding in parallel with consumption phase-down) are as follows:

2012-2014:	Non production: US\$ 295 million	Production: US\$ 205 million
2015-2017:	Non-production: US\$ 581 million	Production: US\$ 209 million
2018-2020:	Non-production: US\$ 568 million	Production: US\$ 228 million

7. Moving production sector tranches from the first triennium to the second, third triennium or even later would reduce the funding requirement in the first triennium

but would not resolve any imbalance in funding over the three triennia considered. The main reason is that relatively high levels of funding are needed for the consumption sector in the second and third triennium. The relatively low funding requirement of US\$ 295 million for consumption sector funding in the triennium 2012-2014 creates the impression of imbalances that may need to be resolved. However, this relatively low figure is the result of substantial ‘front loading’ of HPMPs in 2011, amounting to some US\$ 178 million (which would otherwise have contributed to a total requirement of US\$ 473 million for non-production sector funding in the triennium 2012-2014, if the front loading had not occurred).

8. In practice, production closure funding tends not to occur in parallel with consumption phase-down. However, in order to maintain stable funding, shifting tranches of production funding from the first and the second triennium to later would need to be accompanied by an increase of consumption sector funding in the first triennium (i.e., additional front loading applied in 2012-2014, or alternatively, approvals for Phase II HPMPs at a very early stage, prior to verification of existing commitments for phase-out by 2015).

9. While the above could to some degree contribute to avoiding a large imbalance in the years 2012-2017, it would not contribute to a resolution after 2017. Additionally, shifting production sector funding to beyond 2020 may give rise to additional challenges since after the year 2020 a significant amount of the baseline consumption still needs to be addressed, which is likely to maintain the relatively high level of the consumption sector funding requirement. The above issues are not affected by the various production sector options as given in chapter 6 of the Supplement report.

Funding approved for phase-down after 2014

10. At ExCom 64, which took place between the publication of the May 2011 report and the Supplement report, several of the HPMPs approved provided funding for more than 10-15% of the relevant baseline consumption and included commitments for meeting targets beyond the 2015, 10% reduction. For example the HPMP for Mexico included funding for about 36% of baseline consumption, and an undertaking to meet a 30% reduction in 2018, with funding tranches in the period 2012 through 2015. The same was valid for Indonesia (commitment until 2018, with a last funding tranche in 2018) and for Cameroon and Lebanon (commitments until 2017, with last funding tranches in 2017).

11. The Task Force has not elaborated on the funding situation of the four countries with approved commitments (at ExCom-64) after 2015, and did not depart from the assumption that all countries can present requests for additional funding for further reductions in 2015, independently of what has been approved in their Phase I HPMPs. If it was assumed that countries would not submit additional funding requests until their commitments in Phase I HPMPs had been met, about US\$ 4 million less would be required for funding the consumption sector and US\$ 3 million for funding the production sector. This would decrease the funding by US\$ 7 million or about 1% of the total estimated for the triennium 2015-2017.

Funding for production closure of specific chemicals

12. Where the obligation under the Montreal Protocol consists of a phase-out in ODP tonnes, the reality will be based on metric tonnes of HCFC-141b, HCFC-142b and HCFC-22. The lower the ODP, the more metric tonnes are required to fulfil the ODP obligation under the Montreal Protocol. Thus, production closure funding is sensitive to the proportion of HCFC-22 in the total amount of HCFCs funded in an HPMP.

13. The various reduction packages used in the reports result in the same amount of ODP tonnes to be phased out, but in different quantities of specific chemicals. This can be illustrated by the HCFC amounts involved in existing HPMPs and HPMPs expected to be approved in the near future. The Supplement report estimates that a total of 5293 ODP tonnes will be phased out in HPMPs for non-LVC countries for the 15% baseline reduction scenario in the triennium 2012-2014. Some 4552 ODP tonnes of this total comes from already approved HPMPs.

14. For a 15% reduction from the baseline and different reduction packages, the table below shows the quantities of different chemicals required for phase-out in ODP tonnes and metric tonnes.

Not-yet-approved HPMPs (triennium 2012-2014)						
15% reduction from the 2009/10 baseline	Reduction package					
	90-0-10%		75-15-10%		55-20-25%	
	ODP tonnes	Metric tonnes	ODP tonnes	Metric tonnes	ODP tonnes	Metric tonnes
HCFC-141b	498	4527	415	3773	304	2764
HCFC-142b	100	1538	84	1292	61	938
HCFC-22 (foam)	71	1291	59	1073	43	782
HCFC-22 (RAC manuf.)	0	0	109	1982	146	2655
HCFC-22 (servicing)	74	1345	74	1345	186	3382
HCFC-22 (subtotal)	145	2636	242	4400	375	6819
Total	743	8702	741	9465	741	10520

15. Dependent on the reduction package, the quantities of HCFC-22 involved vary significantly ranging from 2,636 tonnes for a package of 90-0-10% to 6,819 tonnes for a package of 55-20-25% (or the total from 8,702 to 10,502 tonnes) with consequent impact on the funding requirement.

The amounts of chemicals involved in the baseline and the amounts to be phased out, expressed in MtCO₂ equivalent

16. Expressed in climate terms, the Supplement presents a baseline consumption for all Article 5 countries of 782.09 MtCO₂ equivalent per year.

17. Consistent with a 10 % reduction from the baseline by 2015, the reductions in all HPMPs approved so far amount to 46.81 MtCO₂ per year for non-LVC and 2.6 MtCO₂ per year for LVC countries. An estimated 1.1 MtCO₂ per year remains to be approved for the remaining LVC countries. This assumes an average reduction of 95% in GWP in chemicals applied in foam blowing and a share of 20% low-GWP chemicals involved in R/AC conversions. Additional reductions from not-yet-

approved HPMPs, are estimated to amount to between 6.05 and 15.44 MtCO₂ equivalent per year dependent on the reduction from the baseline and the type of reduction package. If the average figure of 10.75 MtCO₂ equivalent per year is used, the total reductions for phase-out funded in the first triennium will be about 60 MtCO₂ equivalent per year.

18. These reductions in climate forcing amount to some 7.6% of the baseline consumption, substantially less than the funded phase-out (both approved and anticipated) of 10-30% of the baseline, expressed in ODP terms.

19. The lower than expected reductions arise because of the preponderance the foam sector in Stage I HPMPs where HCFC-141b conversions yield low savings compared to conversions from HCFC-22 to low-GWP alternatives in the R/AC sector (or to a phase-out of HCFC-22 in servicing). Additionally, not all conversions from HCFC-22 to other chemicals (including HFCs and R-410A) will result in a complete saving, or no saving at all.

20. In summary, if reductions in MtCO₂ equivalent per year of the order of 15-20% of the baseline by 2020 are targeted, a higher proportion of conversions will need to take place in subsectors that involve phase-out of HCFC-22. However this will automatically imply an increase in funding corresponding to the level of reductions gained in ODP terms.