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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eightieth Meeting  
Montreal, 13 – 17 November 2017

**Addendum**

**OVERALL ANALYSIS OF THE RESULTS OF THE SURVEYS OF ODS ALTERNATIVES  
(DECISION 79/42(c))**

This document is being issued to:

- **Add** Annex I(bis): Information on consumption of non-HFC alternatives from ODS alternatives survey reports from 119 Article 5 countries as attached.

## Annex I(bis)

**INFORMATION ON CONSUMPTION OF NON-HFC ALTERNATIVES FROM ODS  
ALTERNATIVES SURVEY REPORTS FROM 119 ARTICLE 5 COUNTRIES**

Particulars	Consumption in mt				Percentage (%) of consumption in sectors	Annual Growth rate (%)
	2012	2013	2014	2015		
<b>RAC Sector</b>						
Hydrocarbons <sup>1</sup>	6,088	8,141	9,159	9,394	41.4	15.6
Ammonia	8,092	7,359	8,899	9,176	40.5	4.3
CO <sub>2</sub>	71	85	1,353	1,158	5.1	153.4
HFOs <sup>2</sup>	0	1	1	345	1.5	822.8
Others <sup>4</sup>	307	408	34	2,596	11.5	103.7
<b>Total</b>	<b>14,559</b>	<b>15,993</b>	<b>19,446</b>	<b>22,669</b>	<b>100.0</b>	<b>15.9</b>
<b>Foam sector</b>						
Hydrocarbons <sup>1</sup>	4,595	5,986	6,957	8,005	57.8	20.3
HFOs <sup>2</sup>	192	196	737	1,439	10.4	95.5
Others <sup>4</sup>	3,307	3,718	4,366	4,394	31.8	9.9
<b>Total</b>	<b>8,094</b>	<b>9,900</b>	<b>12,060</b>	<b>13,838</b>	<b>100.0</b>	<b>19.6</b>
<b>Solvents</b>						
Hydrocarbons <sup>1</sup>	6	6	6	4	0.1	-14.1
HFOs <sup>2</sup>	16	24	1	9	0.1	-15.5
PFCs <sup>3</sup>	0	0	0	0	0.0	-22.4
Others <sup>4</sup>	5,392	6,163	6,981	6,677	99.8	7.4
<b>Total</b>	<b>5,414</b>	<b>6,193</b>	<b>6,989</b>	<b>6,690</b>	<b>100.0</b>	<b>7.3</b>
<b>Aerosols</b>						
Hydrocarbons <sup>1</sup>	7,333	7,545	6,223	5,779	99.9	-7.6
Others <sup>4</sup>	4	4	5	5	0.1	14.5
<b>Total</b>	<b>7,336</b>	<b>7,549</b>	<b>6,228</b>	<b>5,784</b>	<b>100.0</b>	<b>-7.6</b>
<b>Fire-fighting</b>						
HFOs <sup>2</sup>	-	-	-	1	0.0	
Others <sup>4</sup>	9,446	10,734	11,482	9,861	100.0	1.4
<b>Total</b>	<b>9,446</b>	<b>10,734</b>	<b>11,482</b>	<b>9,862</b>	<b>100.0</b>	<b>1.4</b>
Substance						
Hydrocarbons <sup>1</sup>	18,022	21,677	22,346	23,183	39.4	8.8
Ammonia	8,092	7,359	8,899	9,176	15.6	4.3
HFOs <sup>2</sup>	209	221	740	1,793	3.0	104.9
PFCs <sup>3</sup>	0	0	0	0	0.0	
CO <sub>2</sub>	71	85	1,353	1,158	2.0	153.4
Others <sup>4</sup>	18,455	21,028	22,868	23,533	40.0	8.4
<b>Total</b>	<b>44,849</b>	<b>50,370</b>	<b>56,206</b>	<b>58,843</b>	<b>100.0</b>	<b>9.5</b>
RAC Sector	14,559	15,993	19,446	22,669	38.5	15.9
Foam sector	8,094	9,900	12,060	13,838	23.5	19.6
Solvents	5,414	6,193	6,989	6,690	11.4	7.3

Particulars	Consumption in mt				Percentage (%) of consumption in sectors	Annual Growth rate (%)
	2012	2013	2014	2015		
Aerosols	7,336	7,549	6,228	5,784	9.8	-7.6
Fire-fighting	9,446	10,734	11,482	9,862	16.8	1.4
<b>Total</b>	<b>44,849</b>	<b>50,370</b>	<b>56,206</b>	<b>58,843</b>	<b>100.0</b>	<b>9.5</b>

**Notes:**

<sup>1</sup>Hydrocarbons include isobutane, pentanes (c,n,i) and other hydrocarbons.

<sup>2</sup>HFOs include HFO- 1234yf, 1234-ze, 1233zd, 1336-mzzm, 1336-mzz-Z, 1330-mee.

<sup>3</sup>PFCs include PFC-218, 552, 662 and reported consumption is very low.

<sup>4</sup>Others include a range of chlorinated chemicals, and other non-HFC chemicals.