



**Multilateral Fund**  
for the Implementation of the Montreal Protocol

# **Format for the preparation of surveys on ODS alternatives**

**CCAC Side Event  
14 October 2016  
Kigali, Rwanda**



# Multilateral Fund

for the Implementation of the Montreal Protocol

## Mandate

- **Paragraph 4 of MOP decision XXVI/9** requested ExCom to consider providing additional funding to conduct inventories or surveys on alternatives to ODS in interested Article 5 parties
- At the 74th Meeting, the ExCom approved funding for the preparation of surveys of ODS alternatives for 85 Article 5 countries



## Mandate

### ExCom decision 74/53

- Defined the scope of the surveys, which is to obtain data (where available) and estimates of ODS alternatives by sector and subsector, and forecasts of most commonly used ODS alternatives
- Agreed on funding levels according to HCFC baseline consumption; countries which had conducted surveys outside the Fund are eligible for 50% of the funding levels
- Requested the Secretariat to prepare a format for preparation and presentation of data resulting from the surveys (at the 75<sup>th</sup> meeting). An overall analysis of the results to be prepared by the Secretariat for consideration at the first meeting in 2017



## **Process of preparation of format for preparing surveys**

- Draft format prepared by the Secretariat for the 75<sup>th</sup> Meeting (document ExCom/75/77) based on extensive experience in the past, on consumption and production of ODS in Article 5 countries, preparation of project proposals , sector phase-out plans and national phase-out plans, including refrigerant management plans, terminal phase-out management plans and, most recently, HPMPs.
- Information on approaches that IAs have taken in implementing HFC inventories funded outside the Fund
- Consultation with bilateral and implementing agencies that noted that the data gathering activities and analysis of the data captured in the draft guide was feasible within the level of funding approved and the time frame (i.e., one year from the approval by the Executive Committee)





## **Process of preparation of format for preparing surveys**

- Draft format was discussed at the 75<sup>th</sup> meeting and revised based on ExCom members feedback (document ExCom/75/77/Rev.1)
- ExCom (decision 75/67) noted:
  - The format of the surveys (as revised at the meeting)
  - Surveys would be conducted on a voluntary basis, information would be collected where available, and the results would solely be for information purposes
- Surveys would be prepared to cover the years 2012–2015, with the assistance of the relevant IAs and using the methodology and approach agreed between the country and the agency
- Results of the survey would be presented as proposed in the format



## **Format for preparation of surveys (1)**

- Assist countries to better understand their historical and consumption trends for ODS alternatives (including low-, medium- and high GWP alternatives), and their distribution by sector and subsector
- Provide a comprehensive overview of the national markets where ODS alternatives have been and will be phased in, taking into consideration other existing technologies
- The methodologies developed for collecting and analysing ODS alternatives and other data (e.g., names of enterprises) should be kept by NOUs to enable data collection after the surveys have been completed
- IAs are encouraged to assist NOUs to put in place a system that would facilitate future data collection of ODS alternatives and its incorporation in CP data reports



## **Format for preparation of surveys (2)**

- Part I: Preparation of surveys on ODS alternatives  
Objectives, implementation modalities, timeframe, and activities to be undertaken (for reference purposes)
- Part II: Presentation of the resulting data from the surveys  
Presents the format for report; describes how the results will be analysed and presented
- Annex I: Use of ODS alternatives per sector  
Information on commonly used ODS alternatives in all manufacturing sectors/subsectors; tables that could be used in collecting data on the use of alternatives in sectors/subsectors (for reference purposes)
- Annex II: Data tables:  
Required tables to be submitted to the Secretariat that will be used for the overall analysis of the results



## **Format for preparation of surveys (3)**

Data collection on ODS alternatives and uses, based on the extensive experience by countries and IAs:

- Article 7 annual report (Ozone Secretariat)
- Country programme: field surveys
- CP data annual report (Fund Secretariat)
- Preparation of investment projects
- Preparation of umbrella projects
- Preparation of sector phase-out plans
- RMP, RMP updates
- TPMP, NPP
- HPMP





## **Format for preparation of surveys (3)**

Institutional set up, policy regulatory frameworks

- Ratification of the MP and its amendments
- Projects for preparation of ODS legislation
- Country programme: identification of laws and regulations
- Import/export licensing and quota systems: updated as phased-out progressed (e.g., MB, HCFC)
- Training for customs officers (stand-alone, RMP, TPMP, NPP)
- RMP/TPMP/NPP preparation: drafting of ODS regulations
- HPMP preparation



## **Format for preparation of surveys (4)**

Controls (i.e., import/export of ODS and alternatives)

- An enforceable import/export licensing and quota system should be in place and capable of ensuring compliance with the MP
- However, a review of verification reports revealed that in several countries the system in place needs improvement:
  - Clearance of imports by importers without licenses or the amount imported exceeded the quota issued
  - NOU has limited control over the issuance of permits
  - Lack of timely transfer of information on actual amounts imported/exported from the Customs to NOU
  - Time of issuance of import/export licenses, and the period of validity (e.g., un-used quota was carried over to the next calendar year, risk of non-compliance)
  - HCFCs are recorded together with non-HCFCs; or the same HCFC is recorded under several codes



## **Format for preparation of surveys (5)**

### **Analysis of data collected on the use of ODS alternatives**

- Consumption data (2012-2015) and forecasts of future use (2015-2030). Production (where applicable)
- Distribution and supply chain
- Availability and prices of alternatives
- Sectors and subsectors where ODS alternatives are used
- Comparison of the use of alternatives with the ODS being replaced
- Challenges faced in the use and further uptake of these alternatives, and proposed solutions
- Impact of these ODS alternatives on the environment



## **Data tables for surveys of ODS alternatives (1)**

**Required tables to be submitted to the Secretariat that will be used as reference for the overall analysis of the results of the surveys for consideration by the ExCom**

- **ODS alternatives use scenario**
  - By substance
  - By sector and subsector
- **ODS alternatives supply scenario**
  - Imports
  - Exports
  - Production





## Data tables for surveys of ODS alternatives (2)

Alternative	Estimated use (mt)			
	2012	2013	2014	2015
<b>HFC*</b>				
HFC-134a				
HFC-32				
HFC-152a				
HFC-245fa				
HFC-227ea/HFC-365mfc				
Others (specify)				
<b>HFC blends</b>				
R-404A				
R-407C				
R-410A				
R-507A				
Others (specify)				
<b>HFO</b>				
HFO-1234yf				
HFO-1234ze				
HFO-1233zd				
HFO-1336mzzm				
<b>Other alternative</b>				
Methyl formate				
Methylal				
Ethanol				
DME				
HC-290				
HC-600a				
Pentane(C,N,I)				
R-744				
R-717				
Others (specify)				



## Data tables for surveys of ODS alternatives (3)

Alternative	Refrigeration air-conditioning		PU foam	XPS foam	Aerosol	Fire fighting	Solvent	Others
	Manufacturing	Servicing						
<b>HFC</b>								
HFC-134a								
HFC-32								
HFC-152a								
HFC-245fa								
HFC-227ea/HFC-365mfc								
Others (specify)								
<b>HFC blends</b>								
R-404A								
R-407C								
R-410A								
R-507A								
Others (specify)								
<b>HFO</b>								
HFO-1234yf								
HFO-1234ze								
HFO-1233zd								
HFO-1336mzzm								
<b>Other alternative</b>								
Methyl formate								
Methylal								
Ethanol								
DME								
HC-290								
HC-600a								
Pentane(C,N,I)								
R-744								
R-717								
Others (specify)								



## Data tables for surveys of ODS alternatives (4)

Alternative	Estimated imports (mt)			
	2012	2013	2014	2015
<b>HFC*</b>				
HFC-134a				
HFC-32				
HFC-152a				
HFC-245fa				
HFC-227ea/HFC-365mfc				
Others (specify)				
<b>HFC blends</b>				
R-404A				
R-407C				
R-410A				
R-507A				
Others (specify)				
<b>HFO</b>				
HFO-1234yf				
HFO-1234ze				
HFO-1233zd				
HFO-1336mzzm				
<b>Other alternative</b>				
Methyl formate				
Methylal				
Ethanol				
DME				
HC-290				
HC-600a				
Pentane(C,N,I)				
R-744				
R-717				
Others (specify)				



## Data tables for surveys of ODS alternatives (5)

Alternative	Estimated exports (mt)			
	2012	2013	2014	2015
<b>HFC*</b>				
HFC-134a				
HFC-32				
HFC-152a				
HFC-245fa				
HFC-227ea/HFC-365mfc				
Others (specify)				
<b>HFC blends</b>				
R-404A				
R-407C				
R-410A				
R-507A				
Others (specify)				
<b>HFO</b>				
HFO-1234yf				
HFO-1234ze				
HFO-1233zd				
HFO-1336mzzm				
<b>Other alternative</b>				
Methyl formate				
Methylal				
Ethanol				
DME				
HC-290				
HC-600a				
Pentane(C,N,I)				
R-744				
R-717				
Others (specify)				





## Data tables for surveys of ODS alternatives (6)

Alternative	Estimated production (mt)			
	2012	2013	2014	2015
<b>HFC*</b>				
HFC-134a				
HFC-32				
HFC-152a				
HFC-245fa				
HFC-227ea/HFC-365mfc				
Others (specify)				
<b>HFC blends</b>				
R-404A				
R-407C				
R-410A				
R-507A				
Others (specify)				
<b>HFO</b>				
HFO-1234yf				
HFO-1234ze				
HFO-1233zd				
HFO-1336mzzm				
<b>Other alternative</b>				
Methyl formate				
Methylal				
Ethanol				
DME				
HC-290				
HC-600a				
Pentane(C,N,I)				
R-744				
R-717				
Others (specify)				



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**Thank you for your attention**