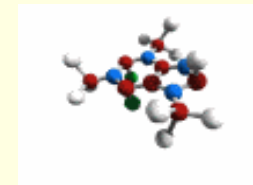
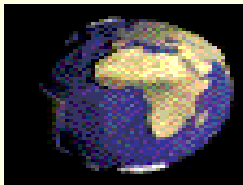




REPUBLIC OF ANGOLA
MINISTRY OF ENVIRONMENT
NATIONAL DIRECTORATE FOR ENVIRONMENT
NACIONAL OZONE UNIT

REFRIGERANT MANAGEMENT PLAN (RMP)

NACIONAL OZONE UNIT
Luanda – Angola
2010



REFRIGERANT MANAGEMENT PLAN (RMP)



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I.- INTRODUCTION

- ❑ One of the responsibilities of governments as party of the Montreal Protocol is the creation of a National Ozone Unit, and furthermore the development of a National Program for the phase out of the Ozone depleting substances (ODS).
- ❑ In order to comply with the obligations resulting from the ratification of the Vienna Convention and the Montreal Protocol, the Government of the Republic of Angola, through its Ministry of Fisheries and Environment had instructed its National Directorate for Environment to create a National Ozone Unit as a focal point for all questions related to the implementation of the Montreal Protocol in the Republic of Angola.
- ❑ The Secretary of the Multilateral Fund to the Montreal Protocol approved on its 34th Conference the financing for the preparation of a Country Program for Angola, which would define a national strategy aiming to progressively reduce the use and consumption of Ozone depleting substances (ODS) in that country.

I.- Cont.

- ❑ Accordingly the Country Programme was prepared, based on a national survey supplying the necessary data on use and consumption of ODS in the fields of refrigeration and air-conditioning (CFCs), agriculture (Methyl Bromide), fire extinction (Halons) as well as foams, solvents and aerosols (CFCs /HCFCs).
- ❑ The survey, including the collection and compiling of data, had been done through Angolan consultants in the period 2001 /2002.
- ❑ The County Program was approved on the 38th Meeting of the Executive Committee of the Multilateral Fund of the Montreal Protocol (ExCom).
- ❑ The Refrigerant Management Plan (RMP) for Angola was then approved on the 39th ExCom in Montreal, April 2003.
- ❑ The document included the following:
 - A timetable for the progressive elimination (phase out) of CFCs.
 - An Action Plan
 - Projects
 - Costs

II.- IMPLEMENTATION

- ❑ The Republic of Angola does not produce any Ozone depleting substances. Accordingly all ODS used have been imported.
- ❑ The total consumption in 2001, calculated on survey and estimates was about 129 metric tons (MT) of CFCs, which is equivalent to 120.7 tons of ozone depleting potential (ODP).
- ❑ In Angola the refrigeration and air-conditioning sector (R&AC) is the main consumer of ODS.

2.1.- Consumption of refrigerant gases of the CFC-group during 2001 “baseline” for Angola

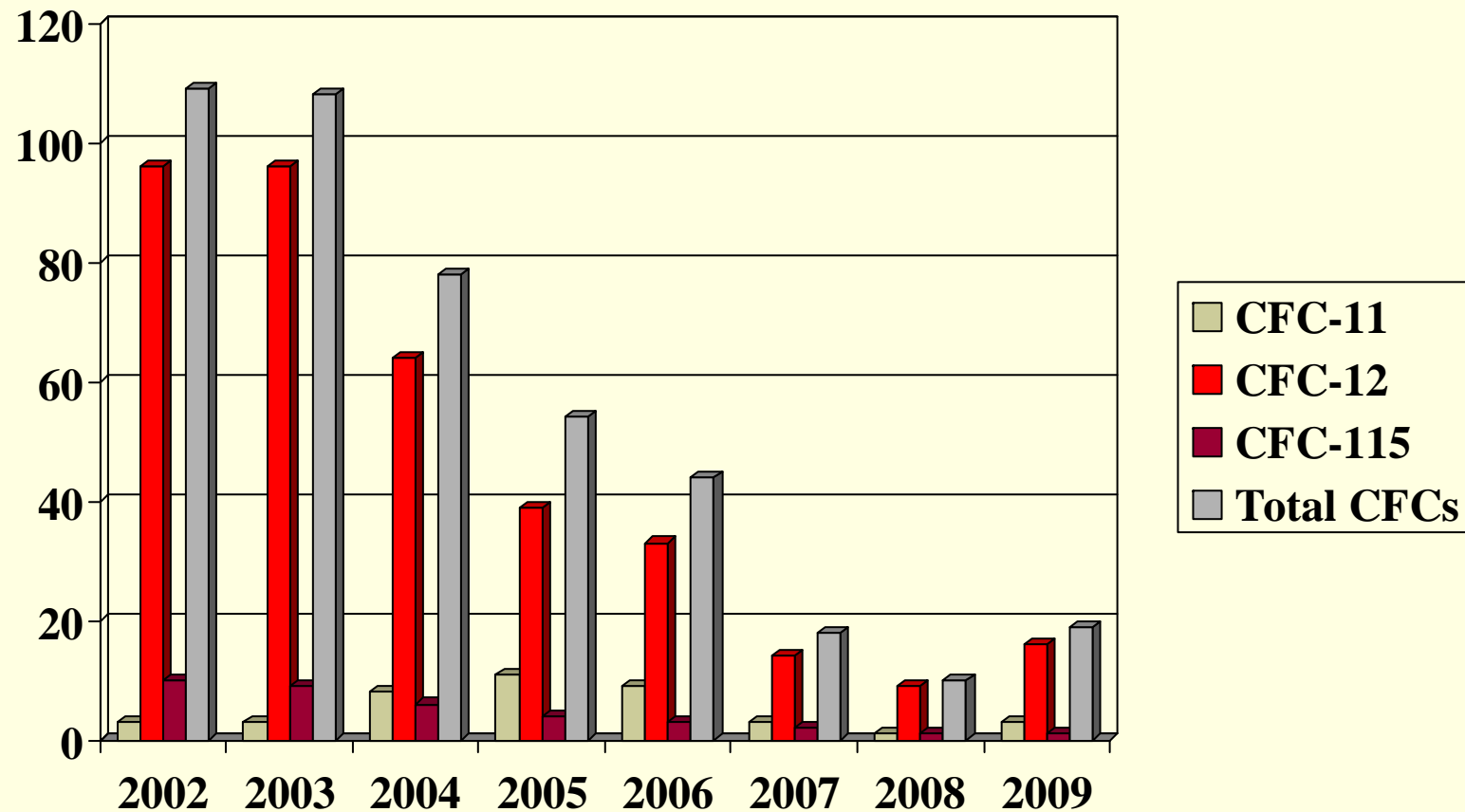
Substances	Ozone depleting potential (ODP)	Consumption during 2001 In tonnes ODP
CFC-11	1.0	3.0
CFC-12	1.0	105.7
CFC-115 (R502)	0.6	12.0
Total		120,7

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2.2.- Consumption of CFCs during the period 2002 – 2009 (metric tons)

Substances	2002	2003	2004	2005	2006	2007	2008	2009
CFC-11	3.0	2.8	8.0	10.4	8.2	2.9	0.8	3,0
CFC-12	96.0	96.0	64.0	39.2	32.2	13.4	8.5	16,0
CFC-115 (R502)	10.0	9.0	6.0	4.0	2.8	1.2	0.6	0.024
Total	109	107,8	78.0	53,6	43.2	17,5	9.9	19,0

2.2.1.- Consumption of CFCs during the period 2002 – 2009 (metric tons)



2.3.- Consumption of refrigerant gases of the HCFC-group during 2009 “baseline” for Angola

Substances	Consumption during 2009 (metric tons)
HCFC-22	270.0
HCFC- 408A	17.0
HCFC- 409A	20.0
Total	307,0

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2.4.- The Refrigerant Management Plan (RMP) for Angola included the following Sub-Projects

- Sub-project for the implementation of a Public Awareness Program
- Sub-project to enforce ODS regulations in order to control imports of ODS
- Sub-project for the training of trainers and technicians in good refrigeration practises.
- Sub-project for the identification and control of ODS-imports (training of customs officers and related agencies)
- Sub-project for retrofit/drop-in for major end-users of CFCs (Incentive programme)
- Sub-project of the recovery and recycling of CFCs (R&R network)

2.5.- Activities done

- Seminars and workshops for the information and awareness creation on the Vienna Convention and the Montreal Protocol, executed in **14** of Angola's **18** provinces, such as Benguela, Bié, Cabinda, Cunene, Huambo, Huíla, Kwanza-Sul, Kwanza-Norte, Kuando-Kubango, Luanda, Malange, Moxico, Namibe and Uíge, with the creation of **14** inter-ministerial support groups on provincial level.



I.- Cont.

- Training courses for trainers and technicians in good refrigeration practises in 7 of Angola's 18 provinces, such as Benguela, Cabinda, Cunene, Huambo, Luanda, Namibe and Uíge.



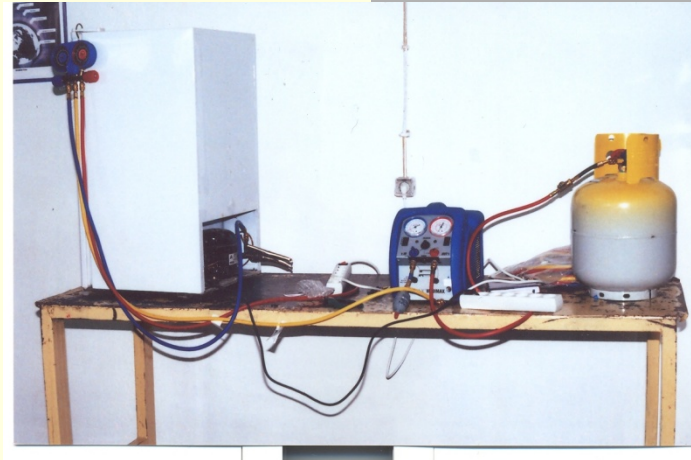
II.- Cont.

- ❑ Training courses for customs officers for the identification and control of ODS, in the 3 coastal provinces of Luanda, Benguela and Namibe.



III.- Cont.

- 7 Laboratories (training centres) for good refrigeration practises have been equipped (demo- and training equipment for good refrigeration, R&R etc) in the provinces of Benguela, Cabinda, Cunene, Huambo, Luanda, Namibe and Uige with the training of **129** technicians. Furthermore **1** centre for identification of refrigerants has been equipped in the Cunene province, Santa-Clara border post, and **84** officers from customs and related agencies have been trained in identification and control of ODS in the provinces of Benguela, Luanda and Namibe respectively.



2.6.- Planned activities (perspectives)

1. - Public Awareness Activities

- Workshops /seminars for information and awareness-creation with regard to the depletion of the Ozone layer, the Vienna Convention and the Montreal Protocol, to be conducted in the provinces of Bengo, Lunda-Norte, Lunda-Sul and Zaire.

2. - Training of technicians of R&AC-sector in good refrigeration practises

- Conduction of the **8th** training course for trainers and technicians in Huila Province.

3. - Training of Customs Officers

- Conduction of the **4th** and **5th** trainings course for identification and control of ODS, to be done in the provinces of Cabinda and Cunene.
- Creation of a **2nd, 3rd, 4th** and **5th** centre for the identification of ODS at the border-posts of Benguela, Cabinda, Luanda and Namibe.

4. - Ratification of the Amendments to the Montreal Protocol

5. - Put in force legislation and regulations for the control of imports and consumption of ODS.

- The last two activities (as per point 4. and 5.) have been handed over to Council of Ministers, awaiting their approval..

6. - Implementation of TPMP

7. - Implementation of phase-out programme for HCFC



THANK YOU

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