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COUNTRY PROGRAMME UPDATE: TUNISIA

This document consists of:

- Comments and Recommendations of the Fund Secretariat
- Letter from the Government of Tunisia
- Country Programme Update and associated Action Plan (Executive Summary submitted by the Government of Tunisia)

TUNISIA COUNTRY PROGRAMME UPDATE

1. On behalf of the Government of Tunisia the World Bank submitted to the 47th Meeting of the Executive Committee Tunisia's country programme update together with a two-page National ODS Phase-out Plan (NOPP). The country programme update was prepared by the World Bank in collaboration with L'Agence National de Protection de l'Environnement (ANPE). Funds in the amount of US \$80,000 were approved at the 42nd Meeting of the Executive Committee to the World Bank to prepare the country programme update for Tunisia.

ODS phase out projects approved for funding

2. The Government of Tunisia and the World Bank in preparing the country programme update, reviewed extensively the progress achieved during the implementation of the original country programme approved at the 19th Meeting in May 1996. So far, the Executive Committee has approved 45 projects and activities for Tunisia at a total cost of US \$7.33 million to phase out 1,019.2 ODP tonnes of ODS. As of December 2004, a total of 941.5 ODP tonnes had been phased out and US \$6.78 million had been disbursed.

ODS consumption

3. The ODS consumption baselines for compliance in Tunisia and allowable ODS consumption for 2005-2015 are shown in Table 1 below.

Table 1: Baseline and allowable consumption of Tunisia

Allowable consumption (ODP tonnes)	CFC	Halon	CTC	Methyl Bromide
Baseline consumption	870.10	104.30	2.90	8.30
2005	1435.05	52.15	0.58	6.64
2007	130.52	52.15	0.58	6.64
2010	0	0	0	6.64
2015	0	0	0	0

4. In 2004, the Government of Tunisia reported to the Ozone Secretariat consumption of 271.0 ODP tonnes of CFC, 42.0 ODP tonnes of halon, 0.44 ODP tonnes of CTC and 10.2 ODP tonnes of methyl bromide. Tunisia's 2004 ODS consumption by sector reported to the Fund Secretariat is shown in Table 2 below.

Table 2: ODS consumption by sector in 2004

Sector	Consumption (ODP tonnes)	Type of ODS
Aerosol	0.0	N/A
Fire fighting	42.0	Halon 1211
Foam	101.0	CFC-11
Fumigant	10.2	Methyl bromide
Refrigeration:		
Manufacturing	0	N/A
Servicing	170.0	CFC-12
Solvents	0.44	CTC
Total	323.6	

Consumption data

5. Data on the scope and consumption of almost all the sectors are based on estimates without any supporting verifiable information. In the aerosol sector, it is estimated that some minimal level of consumption (about 10 ODP tonnes) still exists in the informal sector. However, Tunisia reported zero CFC consumption in the aerosol sector for 2004. The quantity of MDIs in the country is estimated at 50,000-100,000 units and the transition cost is estimated at US \$5-10/unit.

6. In the foam sector it was surmised that some of the “35 or more companies” that have not received assistance from the Multilateral Fund could be using CFCs. However, although CFC demand in the sector is estimated to be 40 ODP tonnes the country programme indicates it is not known which companies were using CFC and in what quantities. Tunisia reported 2004 foam sector CFC consumption of 101 ODP tonnes.

7. In the refrigeration sector it is estimated that CFC demand is about 221 ODP tonnes. However it is not known which of the unfunded enterprises are still using CFCs. Tunisia reported 2004 refrigeration sector data of 170 ODP tonnes of CFC-12. In the servicing sector, which accounts for over 80 per cent of the CFC consumption, the country programme update indicates that neither the number of service workshops nor the number of CFC-containing chillers are known. Tunisia is now planning further studies to be undertaken by UNIDO in 2006 to update the data on the servicing sector with a view to obtaining more precise data on the sub-sector and defining the consumption needs, and at the same time determining the most cost-effective phase-out modalities for total phase-out by 2010. UNIDO has already received project preparation funds of US \$30,000 (at the 24th Meeting in March 1998) for the preparation of a RMP for Tunisia. Although the project preparation is reported as finished, no project document has been submitted to the Executive Committee.

8. With regard to methyl bromide, Tunisia has no other uses besides the fumigation of high moisture dates. Phase-out of methyl bromide in Tunisia was given a two-year exemption by decision XV/12 of the Fifteenth Meeting of the Parties to enable the Technology and Economic Assessment Panel (TEAP) to investigate the available technology options further.

Status of project implementation

9. The 45 projects approved for Tunisia (mentioned in paragraph 2 above) consisted of 30 investment projects and 15 non-investment projects. The 30 investment projects included 8 aerosol projects to phase out 283.2 ODP tonnes, 15 foam projects to phase out 535.4 ODP tonnes and 4 refrigeration projects (including two umbrella projects for 13 enterprises) to phase out 179.5 ODP tonnes of CFC. There was also one solvent project to phase out 0.9 ODP tonnes of CTC. All the aerosol and refrigeration projects have been completed. Five of the foam projects accounting for 56.6 ODP tonnes of CFC-11 had not been completed as at the end of 2004.

Policies, regulations and other activities

10. The national ozone unit (NOU), the “Ozone Bureau” was created by the Government to facilitate and coordinate the work of a national committee on ozone issues made up of relevant Ministries and agencies. It is the NOU that actually implements ODS phase-out programmes and activities within ANPE.

11. Government regulations, policies and other initiatives that have been adopted to manage ODS phase-out in Tunisia include:

- Establishing general guidelines on import of ODS in 1993;
- Establishing import license or special permit system to control bulk import of ODS also in 1993;
- Procedures for regular collection of data on ODS in the country;
- Certification of importers of ODS;
- Establishment of a body to manage the issue of ODS quotas.

Activities in the updated country programme

12. Activities in the updated country programme cover the period 2005-2010. Beside training and capacity building a number of phase-out activities in the aerosol, halon, foam and refrigeration sectors are envisaged. These include aerosol technical assistance programme, end-user programme for metered dose inhalers (MDI), refrigerant management plan (RMP), chiller demonstration project and HCFC management study for a total cost of about US \$4 million, including agency support costs of about US \$280,000.

13. The remaining CFC consumption eligible for funding has been estimated to be 270 ODP tonnes (decision 35/57). The consumption is distributed as shown below. Tunisia has to account for 20 ODP tonnes of CFCs as impact of its institutional strengthening project renewal.

Sector	ODP tonnes
Aerosol	10
Foam	40
Refrigeration	200

ODS phase-out plan

14. The expected national ODS phase-out plan prepared together with the country programme update is based on the information in the country programme update and is to address the remaining ODS consumption in the country excluding methyl bromide. The ODS consumption to be addressed is estimated to be 270 ODP tonnes of CFC and 42 ODP tonnes of halon, with the following sectoral distribution: 10 ODP tonnes of CFC in the aerosol sector; 40 ODP tonnes in the foam sector, 200 ODP tonnes in the refrigeration servicing sector and 42 ODP tonnes of halon in the fire fighting sector. The ODS phase-out plan will be submitted for consideration as a separate document.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS**COMMENTS**

15. During the review of the country programme update and the National ODS Phase-out plan the Secretariat identified a number of issues relating *inter alia*: to the quality of the data and general lack of verifiable supporting data on the consumption levels claimed in the country programme update, the maximum level of CFC consumption eligible for funding; and lack of coordination of the activities of the agencies involved in various aspects of the implementation of an eventual phase-out plan to address the remaining CFC consumption. The World Bank's attention was drawn to these issues on 8 October 2005 with suggestions on possible ways for moving the process forward. As at the time of writing this document (on 24 October 2005) no response to the issues raised had been received from the World Bank.

Remaining CFC consumption eligible for funding

16. The remaining CFC consumption eligible for funding for Tunisia was calculated by the Fund Secretariat to be 157.6 ODP tonnes of CFCs on the basis of Option 1 (Montreal Protocol baseline). However, Tunisia has estimated the remaining eligible CFC consumption in the country to be 271 ODP tonnes claimed to be based on option 2 using the latest consumption, i.e. 2004 consumption. This method of calculation is not consistent with that of decision 35/57, and also since projects have been approved for Tunisia after the 35th Meeting of the Executive Committee, the assessment of the remaining consumption based on option 2 would not apply to Tunisia's case. Therefore the remaining CFC consumption eligible for funding would be 157.6 ODP tonnes as calculated by the Secretariat.

Foam sector

17. Five projects with a total consumption of 56.6 ODP tonnes were planned to be completed in January 2005. Therefore the calculation of the amount of CFCs eligible for funding based on 2004 data should take account of this quantity of CFCs consumed by the companies in 2004. Based on the reported data for the sector and the amount of CFCs in the on-going projects the amount of CFCs remaining in the sector for funding would be 44.4 ODP tonnes.

Refrigeration Sector

18. The cost of the phase-out of CFCs in the refrigeration servicing sector is estimated at about US \$2 million to phase out 200 ODP tonnes, i.e. with cost-effectiveness of US \$10/kg. This is a 100 per cent increase in the then historical average cost-effectiveness of US \$5.00/kg for such projects. The CFC consumption, as well as the estimated cost of phasing it out, can only be considered as tentative since it is stated in the country programme update, that Tunisia is now planning further studies that will be undertaken by UNIDO in 2006 to determine the sector consumption and the most cost-effective phase-out modality.

19. With regard to the chiller replacement/retrofit project such requests would be made within the framework of decision 46/33. Furthermore information provided in the country programme update on the chiller replacement component of the action plan does not meet the requirements of decision 46/33, in particular paragraph 132(b), sub-paragraphs 2 and 4 of sub-paragraph (ii).

MDI component

20. The Secretariat noted that contrary to decision 37/61 the MDI project is not required to ensure compliance. Furthermore at the cost of US \$550,000 it does not appear to be cost-effective.

Quality of data

21. The information provided in the country programme update is not supported by actual verifiable data, such as data obtained from field surveys of the sectors. Furthermore the sector data reported in the country programme update are not consistent with data reported by Tunisia to the Fund Secretariat on implementation of its country programme. In the refrigeration servicing sector, which accounts for over 80 per cent of the consumption, studies to update and obtain more precise data to determine the sector consumption needs and phase-out modalities will only be undertaken in 2006 (by UNIDO).

Cost of the plan

22. The costs of the various components of the plan are either not consistent with the respective cost-effectiveness threshold limits values, or where the sectors have no assigned cost-effectiveness threshold the projects do not appear to be cost-effective. The following tables (3a and 3b) show the costs as presented in the country programme update and calculated by the Fund Secretariat respectively:

Table 3(a): Cost of Tunisia National ODS phase-out plan (World Bank/ANPE)

Sector	ODS to be phased out (ODP tonnes)	Funding requested (US \$)	Cost-effectiveness (US \$/kg)
Aerosol technical assistance programme	10	100,000	10.00
Converting to non-MDI	0	550,000	N/A
Refrigerant management plan for servicing sector	200*	2,002,500	10.01
Chiller demonstration project	N/A	650,000	N/A
Foam sector	40	280,000	7.00
Fire protection sector	42	75,000	1.79
HCFC study management	N/A	75,000	N/A
Total	292	3,732,500	

* This consumption level is not consistent with that provided in a similar cost table in the NOPP, which is, stated as 221 ODP tonnes.

23. Based on the calculated amount of CFCs eligible for funding of 157.6 ODP tonnes and the various comments made above, the Secretariat estimated the total cost of the phase-out plan to be about US \$987,000 as shown in Table 3b below. The basis of the calculation is set out in (a) to (g) below:

(a) Maximum eligible consumption:	157.6 ODP tonnes
(b) CFC consumption in the foam sector	44.0 ODP tonnes
(c) CFC consumption in the refrigeration sector (servicing):	113.6 ODP tonnes
(d) CFC consumption in the aerosol sector	0 ODP tonnes
(e) Average cost-effectiveness of Tunisian foam projects	US \$5.31/kg
(f) Average cost-effectiveness of Multilateral Fund refrigeration servicing sector	US \$5.00/kg
(g) Halon consumption	42 ODP tonnes

Table 3(b): Cost of Tunisia National ODS phase-out plan (Fund Secretariat)

Item/Sector	ODS Consumption (ODP tonnes)	Eligible Cost (US \$)	Cost-effectiveness (US \$/kg)	Remarks
Aerosol technical assistance programme	0	0	N/A	No verification data for sector consumption
Conversion to non-MDI	N/A	30,000	N/A	Executive Committee guidelines
RMP for refrigeration servicing sector	113.6	568,000	5.0	See (c) and (f) above
Chiller demonstration	N/A	0	N/A	Executive Committee decision on funding window
Foam sector phase-out	44	233,640	5.31	See (c) and (e) above
Fire protection sector	42	65,000	1.55	Based on historical approval
HCFC study and management	N/A	0	N/A	Executive Committee decisions regarding funding
Monitoring cost at 10 per cent of project cost (US \$57,000-refrigeration) (US \$23,000- foam)	N/A	90,000	N/A	
Total	199.6	986,640	4.94	

Agency responsibility

24. Although it is stated that UNIDO will embark on preparation of an RMP for Tunisia in 2006, there is no indication of the responsibilities of the agencies involved in the plan's implementation, with respect to activities as well as funding.

RECOMMENDATIONS

25. The Fund Secretariat recommends approval of the Tunisia country programme update, noting that approval of the country programme update does not denote approval of the projects identified therein or their funding levels.

République Tunisienne
* * *
**Ministère de l'Environnement
et de Développement Durable**



**Agence Nationale de Protection de
l'Environnement**
* * *
Bureau National d'Ozone

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N.Réf : H.H / Bureau Ozone

Objet :Requête de soumission du programme national Tunisien et de financement du plan national d'élimination progressive des SDO (NOPP).

Monsieur,

J'ai l'honneur de venir par le présente habiliter la Banque Mondiale de présenter au nom de la Tunisie une requête de soumission du rapport de mise à jour du programme national Tunisien et de financement du plan national d'élimination progressive des SDO auprès du secrétariat du fonds multilatéral afin de les présenter devant le comité exécutif lors de sa prochaine réunion que aura lieu en Novembre 2005.

Comptant sur votre parfaite collaboration, veuillez agréer Monsieur Ahmed, mes sentiments les meilleurs.

LE DIRECTEUR DU BUREAU OZONE

Hassen HANNACHI



TUNISIA COUNTRY PROGRAM UPDATE (CPU) and ASSOCIATED ACTION PLAN

EXECUTIVE SUMMARY

This Country Program Update (CPU) for Tunisia provides an overview of activities implemented under the Montreal Protocol on Substances that Deplete the Ozone Layer (MP) in Tunisia. The report includes a review of Tunisia's current status with respect to the ratification of each of the amendments to the MP. It provides an overview of the assistance provided by the Multilateral Fund for the Implementation of the Montreal Protocol (MLF) for supporting Tunisia's effort in meeting, and exceeding, its obligations under the MP as given in the initial Country Program. It reviews the strategy deployed in creating the original country program and the current situation with respect to remaining ODS. It also includes a sector-specific detailed analysis of remaining ODS phase-out that is required in the country and presents a strategy, action plan and a tentative cost estimate to complete the phase-out of category Annex A , Group I, II, and Annex B Group II and III ozone depleting substances .

The ODS Sub-committee of the National Committee constituted the PMU and was/is also in charge of technical support and provides technical assistance to ensure that the obligations under the MP are met. This is facilitated by ANPE / Ozone Bureau (NOU).

No ODS are, or have historically been, produced in Tunisia. Tunisia has, and remains, committed to the complete ODS phase-out in accordance with the timetable set by the MP. It has enshrined this timetable in its "top tier" agenda, and thus, priority domestic legislation.

On the 25 September 1989, Tunisia ratified the MP, committing to phase out ODS and therefore became eligible to receive grants from the MLF which was established to provide financial support to developing countries in meeting their obligations under the MP. Tunisia was one of the early countries to receive financial assistance from the MLF for the development of a CP and the development of a national strategy for phasing out the use of ODS in accordance with the milestones given for Article 5(1) countries by the MP. Tunisia's original CP was under preparation for over two years, the intervening period being used for data collection and developing the required strategies and defining the required policy and legal frameworks. The CPU was completed with the assistance of the World Bank in 1994. The Executive Committee (ExCom) to the Multilateral Fund (MLF) subsequently approved the Tunisia CP at its 19th meeting in May 1996.

The first CP identified CFC uses at the time as contributing about 45% of the ODS consumption, predominantly from the refrigeration, foam production and aerosol sub-sectors. Hence, developing a national capacity for managing the ODS phase-out program and addressing these three main ODS consuming sectors were seen as essential. Through a grant from the MLF, channeled through the World Bank, Tunisia started its phase-out program by:

- Creating an Ozone Committee for the implementation of the first Action Plan
- Establishing a framework for monitoring ODS use on a sub-sector basis; and,

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- Identifying adjustments needed to the then existing legal framework to permit the banning of ODS use consistent with the MP phase-out schedule.

At the time of preparation of the original CP, the MP had set a phase-out date of Annex A, Group 1 substances (CFCs) for Article 5 countries of 2010 with intermediate targets of 50 percent reduction in 2005 (from the average consumption for 1995-97) with a further reduction to 85 percent by 2007. The CP stated “the phase-out will be completed by 2010”.

One might ask, what has been the impact of the Tunisian ODS reduction / elimination program to date? Fortunately, the first Tunisian Country Program (data collected in 1992), not only reviewed the different uses of CFCs, but also estimated the future CFC consumption for each sub-sector that was likely to occur without intervention via assistance from the Montreal Protocol. These early estimates were based on a number of considerations which included anticipated growth of population, GDP augmentation, increases anticipated in household incomes etc. The 1992 country program also established (estimated) the consumption in 1991 to be 1,125 tonnes and estimated that with an unconstrained growth anticipated at that time to be 3% - 7% over the period 1992 – 2010, Tunisia would reach a consumption of over 3,000 tonnes by 2010. The following table shows the CP anticipated consumption figures (1994 compiled data) compared to the actual consumption figures which occurred which illustrates, and is a testimonial to, the reductions achieved through the implementation of the Tunisian Ozone Program.

Table 1: Overall CFC phase-out Impact of the Tunisian Ozone Program (tonnes)

	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>
<i>Unconstrained CFC consumption</i>	1,411	1,495	1,583	1,669	1,759	1,854	1,955	2,062	2,175	2,295
<i>Actual CFC consumption</i>	758	882	970	970	566	555	570	465	362	
<i>Impact of the MP / NOU program</i>	653	613	613	699	1,193	1,299	1,385	1,597	1,813	

Another way to assess progress is to compare Tunisian ozone program results with the MP targets set after the Tunisia CP was approved. Tunisia has gone far beyond just meeting the first MP milestone: the 1999 freeze level for Annex A Group A substances (CFCs). In fact, in 1999, CFC consumption was 566 tonnes CFC, or 68.8 percent of the freeze level for CFC consumption. By 2003 Tunisia’ CFC consumption was down to 362.5 tonnes, or already, a reduction of 41.6 percent, well below the required 50 percent reduction by January 1, 2005. By December 31, 2004 Tunisia had reduced its CFC consumption to 271 ODP tonnes, its Halon consumption to 42.0 ODP tonnes; and, its solvent (CTC) consumption to 0.4 ODP tonnes. MBr consumption remains at 10.2 ODP tonnes.

Whichever way one prefers to measure progress, Tunisia has made very substantial progress its ODS phase-out over the past decade. It also should be noted that Tunisia has not received any MLF support to date for Halons.

This Country Program Update (CPU) prepared by Tunisia with the assistance of the World Bank, addresses remaining ODS which consists of CFC, Halons, CTC and MBr. It also sets out an action plan for the complete phase-out of ODS in accordance with the respective MP schedules. However, MBr will be phased out expeditiously and in accordance with any future

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ExCom / MOP decisions once a suitable alternative for QPS of dates is identified by the TEAP and approved by the Parties.

This CPU was prepared on the basis of an analysis of the original CPU, updated information provided by ANPE and other Tunisian Agencies (via ANPE), a survey of current CFC consumers; and, to a very limited degree, data available from an earlier draft RMP proposal.

The CPU also contains a review of the progress and results achieved to date; and, finally, an analysis which, as precisely as possible, characterizes and quantifies the remaining ODS. This is followed by a careful consideration of alternatives and/or actions still needed to phase out, in accordance with MP schedules; the remaining ODS as cost effectively as possible.

A critical assessment was also undertaken to identify any further policy needed to support strategies and actions to complete the phase-out of remaining ODS in the country. Ongoing actions will continue as individual projects as shown below:

With the exception of MBr, all of the remaining phase-out actions needed will be included in, or added to, Tunisia's ongoing ODS Phase-out Program. The overall targets for all sectors will be as follows:

- A total phase-out of Halon consumption by 2010;
- A complete phase-out of remaining CFCs in the aerosol (including MDIs), foam and refrigeration servicing sectors by 2010;
- A phase-out of methyl bromide (to be decided once an alternative is identified); and,
- The establishment of a database and management framework for HCFCs.

The components of the action plan address:

- The remaining CFC consumption in the aerosol sector;
- The transition away from CFC-based MDIs;
- The remaining CFCs in the foam sector;
- The phase-out of Halons in the fire protection sector;
- The refrigeration servicing sector (including CFC recycling and reclaiming);
- Training in the refrigeration servicing sector;
- The chiller situation analysis and demonstration project;
- Customs related equipment needs and associated training requirements; and,
- HCFC database creation and situation analysis.

What follows is the more detailed description of Tunisia's Country Program Update (CPU) and includes the associated action plan for phasing out the remaining ODS (excluding HCFCs and MBr).

The estimated cost of this action plan is about US\$ 2,820,000 for funding of the remaining consumption of 313.4 ODP tonnes of ODS (271 ODP tonnes for CFCs, 42 ODP tonnes for Halons and 0.4 for CTC).

The proposed Action Plan is presented in Chapter IV.