



**United Nations  
Environment  
Programme**

Distr.  
LIMITED

UNEP/OzL.Pro/ExCom/44/28  
3 November 2004

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Forty-fourth Meeting  
Prague, 29 November-3 December 2004

**PROJECT PROPOSAL: BOSNIA AND HERZEGOVINA**

This document consists of the comments and recommendation of the Fund Secretariat on the following project proposal:

Phase out

- National ODS phase-out plan: second tranche

UNIDO

**PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS  
COUNTRY: BOSNIA AND HERZEGOVINA**

**PROJECT TITLE****BILATERAL/IMPLEMENTING AGENCY**

National ODS phase-out plan: second tranche	UNIDO
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**NATIONAL CO-ORDINATING AGENCY:**NOU, Ministry of Foreign Trade  
and Economic Relations**LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT****A: ARTICLE-7 DATA (ODP TONNES, 2003, AS OF JULY 2004)**

Annex A, Group I, CFCs	230.0
Annex B, Group III, TCA	3.6

**B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2003 DATA, AS OF 1 JUNE 2004)**

ODS	Aerosol	Foam	Ref. mfg.	Ref. Service	Solvent
CFC-11	0	47.0	81.8	0	0
CFC-12	0	0	16.2	85.0	0
TCA	0	0	0	0	3.6

**CFC consumption remaining eligible for funding (ODP tonnes)**

n/a

**CURRENT YEAR BUSINESS PLAN:** Total funding US \$318,000 : total phase-out 42.1 ODP tonnes

PROJECT DATA		2003*	2004	2005	2006	2007	2008	2009	2010	Total
CFCs (ODP tonnes)	Montreal Protocol limits for the country	24.2	24.2	12.1	12.1	3.6	3.6	3.6	0	n.a.
	Agreed annual consumption limits	235.3	167.0	102.1	33.0	3.0	0	0	0	n.a.
	Annual phase-out from ongoing projects		67.1	47.0	0	0	0	0	0	114.1
	Annual phase-out newly addressed		0	17.9	69.1	30.0	3.0	0	0	120.0
	Annual MLF-funded phase-out		67.1	64.9	69.1	30.0	3.0	0	0	234.1
TCA (ODP tonnes)	Montreal Protocol limits for the country	1.7	1.7	1.1	0	0	0	0	0	n.a.
	Annual phase-out from ongoing projects		0.6	0	0	0	0	0	0	0.6
	Annual phase-out newly addressed		0	1.1	0	0	0	0	0	1.1
	Annual MLF-funded phase-out		0.6	1.1	0	0	0	0	0	1.7
<b>TOTAL ODS CONSUMPTION TO BE PHASED-OUT (CFCs and TCA)</b>			67.7	66.0	69.1	30.0	3.0	0	0	235.8
Total ODS consumption to be phased in		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Final total project funding (US\$)</b>		265,300	295,860	303,000	0	0	0	0	0	864,160
<b>Final total support cost (US\$)</b>		19,898	22,190	22,725	0	0	0	0	0	64,812
<b>TOTAL COST TO MULTILATERAL FUND (US\$ 000)</b>		285,198	318,050	325,725	0	0	0	0	0	928,972
<b>Final project cost effectiveness (US \$/kg)</b>										7.24

\*Estimated value

**FUNDING REQUEST:** Approval of funding for the second tranche (2004) as indicated above.

<b>SECRETARIAT'S RECOMMENDATION</b>	For individual consideration
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## PROJECT DESCRIPTION

### Background

1. The National ODS Phase-out Plan for Bosnia and Herzegovina was approved in December 2003 at the 41st Meeting of Executive Committee, taking into account the plan of action recommended by the 31st Meeting of the Implementation Committee and approved at the 15<sup>th</sup> Meeting of the Parties (Decision XV/30). In its plan of action the Government of Bosnia and Herzegovina committed to reduce its CFC consumption from 243.6 ODP-tonnes in 2002 235.3 ODP tonnes in 2003, 167 ODP tonnes in 2004, 102.1 ODP tonnes in 2005, 33 ODP tonnes in 2006, 3 ODP tonnes in 2007, and to phase out CFC consumption by 1 January 2008, except for essential uses that might be authorized by the Parties. Bosnia and Herzegovina also committed to establish, by 2004, a system for licensing imports and exports of ODS, including quotas, and to ban, by 2006, imports of ODS-based equipment.

2. Targets and funding are reproduced in Table 1 below as contained in the Agreement between the Government of Bosnia and Herzegovina and the Executive Committee.

Table 1

	2003(*)	2004	2005	2006	2007	2008	2009	2010
1A. Max agreed total consumption of Annex A Group I substances (ODP tonnes)	235.3	167.0	102.1	33.0	3.0	0	0	0
2. Reduction from ongoing projects		68.3	47.0	0	0	0	0	0
3. New reduction under plan		0	17.9	69.1	30.0	3.0	0	0
4. Total annual reduction of Annex A Group I substances (ODP tonnes)		68.3	64.9	69.1	30.0	3.0	0	0
5. Max allowable total consumption of Annex B Group III substances (ODP tonnes)	1.7	1.7	1.1	0	0	0	0	0
6. Reduction from ongoing projects	-	0.6	0	0	0	0	0	0
7. New reduction under plan	-	0	1.1	0	0	0	0	0
8. Total annual reduction of Annex B Group III substance (ODP tonnes)	-	0.6	1.1	0	0	0	0	0
9. Lead I.A. agreed funding (US \$)	265,300	295,860	303,000	0	0	0	0	0
10. Lead I.A. support costs (US \$)	19,898	22,190	22,725	0	0	0	0	0
11. Total agreed funding (US \$)	285,198	318,050	325,725	0	0	0	0	0

(\*) Estimated consumption figure

### Progress Report on Activities Undertaken in 2004

3. UNIDO, on behalf of the Government of Bosnia and Herzegovina, submitted the progress report on implementation of the 2004 Work Programme.

4. According to the progress report, several activities were initiated in 2004:
  - In the foam sector, one company manufacturing water boilers was identified for technical assistance. The letter of consent was signed with UNIDO, technical specifications for the purchase of equipment WERE agreed. Competitive bidding was organized subsequently. The installation and commissioning of equipment is planned to be completed at the end of 2004.
  - In the refrigeration manufacturing sector, three companies have been identified as eligible for funding. Technical specifications for the purchase of foaming and refrigeration production equipment have been agreed and competitive bidding has commenced. The installation and commissioning of equipment is planned to be completed at the end of 2004.
  - Discussion between UNIDO and the Government of Bosnia and Herzegovina has been initiated on proper modalities for the implementation of the customs training programme.
  - Under the National Programme for Training Service Technicians, UNIDO is in communication with the Government of Bosnia and Herzegovina regarding the preparation of the training manual for refrigeration servicing technician.
5. The progress report contains information on the financial status of the implementation of the National ODS Phase-out Plan. The approved expenditures represent about 75% of the total allocations approved under the first tranche.
6. The consumption of CFCs in 2003 was 230 ODP tonnes, which was lower than the estimated consumption of 235.3 ODP tonnes. The consumption of TCA was 3.6 ODP tonnes, which is higher than the Montreal Protocol baseline consumption level of 1.7 ODP tonnes for TCA.

#### 2005 Annual Implementation Programme

7. The 2005 annual implementation programme contains planning activities to be implemented in the refrigeration manufacturing and servicing sub-sectors and in the foam and solvent sectors. The estimated CFC consumption in 2004 of 168.7 ODP tonnes in these sectors is expected to be reduced by 65.5 ODP tonnes to 103.2 ODP tones in 2005. The planning level of consumption and reduction corresponds to targets established in the Action Plan and the Agreement. The proposed activities cover the provision of technical assistance in the solvent sector, undertaking investment activities for conversion of refrigeration manufacturing enterprises to non-ODS technologies, recovery and recycling of CFC refrigerants, and training of refrigeration technicians. Policy development activities at the Government level will address: the establishment of policy control on ODS import; enforcement of regulations facilitating the reduction in CFC consumption and total phase-out and monitoring; public awareness activities. The proposed activities are presented in accordance with the format outlined in the Agreement.
8. The requested funding is US \$295,860 with agency support costs of US\$ 22,190.

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

9. The Secretariat noted that the 2004 progress report has no indications on activities at the Government level undertaken in 2004 toward establishing a system for licensing imports and exports of ODS, including quotas in Bosnia and Herzegovina. It also drew UNIDO's attention to the Government's commitments to establish such a system by 2004 and to ban, by 2006, imports of ODS-based equipment as reflected in the plan of action approved by the Fifteenth Meeting of Parties (Decision XV/30). The Secretariat advised UNIDO to revise the 2005 work programme by introducing the necessary activities.

10. The reported consumption of TCA in 2003 (3.6 ODP tonnes) exceeded Bosnia and Herzegovina's Montreal Protocol baseline limit for TCA consumption of 1.7 ODP tonnes which is also the limit contained in Table 1 of the Agreement. Bosnia and Herzegovina therefore appears to be in non-compliance for TCA. The Secretariat sought clarification from UNIDO on this issue. UNIDO clarified that, at the time of approval of the National ODS Phase-out Plan and the Agreement at the 41st Meeting of the Executive Committee in December 2003, the TCA consumption of 2.3 ODP tonnes for 2003 was reflected as an estimate in the footnote to Table 1 in the Agreement. More accurate data on TCA consumption in 2003 were obtained and reported by the NOU only in 2004. The consumption of TCA will be consistent with the targets established in following years.

11. No provision has been made in the 2005 annual programme for an independent audit of CFC and TCA phase-out and consumption. Since, unlike payments in 2003 and 2004, the payment in 2005 is not exempt from verification audit, it would be expected that, as a condition for receiving the third tranche in 2005, the Government of Bosnia and Herzegovina would provide data on CFC and TCA phase-out and level of consumption in 2004, verified through an independent audit.

12. UNIDO agreed to revise the 2005 work programme introducing the necessary activities accordingly.

13. The proposal is submitted for individual consideration.

### RECOMMENDATION

14. The Executive Committee may wish to consider approval of the 2005 work programme and the requested funding in light of information provided above.

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## PROJECT COVER SHEET – MULTI-YEAR PROJECTS

**COUNTRY:** Bosnia and Herzegovina

**PROJECT TITLE**

National ODS Phase-out Plan (multi sector), 2<sup>nd</sup> Tranche

**IMPLEMENTING AGENCY**

UNIDO

**NATIONAL COORDINATING AGENCY:**

NOU, Ministry of Foreign Trade and Economic Relations

### LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT

#### A: ARTICLE-7 DATA (ODP tonnes, 2003, AS OF JULY 2004)

Annex A, Group I, CFCs	230.0
Annex B, Group III, TCA	3.6

#### B: COUNTRY PROGRAMME SECTORAL DATA (2003), ODP tonnes

ODS	Aerosol	Foam	Ref. mfg.	Ref. Service	Solvent	TOTAL
CFC-11	0	47.0	81.8	0	0	128.8
CFC-12	0	0	16.2	85.0	0	101.2
CFC Total	0	47.0	98.0	85.0	0	230.0
TCA	0	0	0	0	3.6	3.6
Total	0	47.0	98.0	85.0	3.6	233.6
CFC Consumption remaining eligible for funding (ODP tonnes)						n.a.

**CURRENT YEAR BUSINESS PLAN:** Total funding \$ 318,000: Total phase-out, 42.1 ODP tonnes

PROJECT DATA		2003*	2004	2005	2006	2007	2008	2009	2010	Total
<b>CFCs</b> (ODP tonnes)	Montreal Protocol limits for the country	24.2	24.2	12.1	12.1	3.6	3.6	3.6	0	n.a.
	Agreed annual consumption limits	235.3	167.0	102.1	33.0	3.0	0	0	0	n.a.
	Annual phase-out from ongoing projects		67.1	47.0	0	0	0	0	0	114.1
	Annual phase-out newly addressed		0	17.9	69.1	30.0	3.0	0	0	120.0
	Annual MLF-funded phase-out		67.1	64.9	69.1	30.0	3.0	0	0	234.1
<b>TCA</b> (ODP tonnes)	Montreal Protocol limits for the country	1.7	1.7	1.1	0	0	0	0	0	n.a.
	Annual phase-out from ongoing projects		0.6	0	0	0	0	0	0	0.6
	Annual phase-out newly addressed		0	1.1	0	0	0	0	0	1.1
	Annual MLF-funded phase-out		0.6	1.1	0	0	0	0	0	1.7
<b>TOTAL ODS CONSUMPTION TO BE PHASED-OUT (CFCs and TCA)</b>			67.7	66.0	69.1	30.0	3.0	0	0	235.8
Total ODS consumption to be phased in		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Total project funding (US\$ 000)</b>		265.3	295.86	303.0	0	0	0	0	0	864.16
<b>Total support cost (US\$ 000)</b>		19.898	22.19	22.725	0	0	0	0	0	64.812
<b>TOTAL COST TO MULTILATERAL FUND (US\$ 000)</b>		285.198	318.05	325.725	0	0	0	0	0	928.972

\* Estimated value

Project cost effectiveness (US\$/kg ODP)	7.24
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**FUNDING REQUEST:** Approval in principle of total ODS phase-out, total project funding and total costs, and approval of funding for the second tranche (2004) as indicated above.

**Prepared by:** Ministry of Environment/UNIDO  
**Reviewed by:** n.a.

**Date:** 30 September 2004  
**Date:** n.a.

## **Part 1. ACHIEVEMENT; FIRST TRANCHE**

### **Preface**

The National ODS Phase-out Plan for Bosnia and Herzegovina was approved in December 2003 at the 41<sup>st</sup> Meeting of Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol. The implementation of the project started in January 2004 through intimate discussion between the NOU and UNIDO to determine the implementation modality of this complicated project involving a number of different types of activities and stakeholders. Major achievement for project implementation during January – September 2004 is described in this Chapter.

#### **1. Project Management (including technical support)**

UNIDO and the NOU are working on establishing the adequate national system to support and facilitate implementation of the project.

#### **2. Foam Sector Program**

One company in the foam sector producing water boilers was verified to be eligible for technical assistance through the procurement of foaming equipment. Company was visited by UNIDO expert, letter of consent was signed and technical specification for the purchase of equipment was agreed. Competitive bidding was organized subsequently. Delivery time November 2004.

#### **3. Refrigeration Manufacturing Sector Program**

Seven production companies in the commercial refrigeration sub-sector as listed in the project document were verified and visited by NOU. Three of them have been found eligible to receive foaming equipment for their cabinet and cold room insulating operations. Technical specification for the purchase of foaming as well as refrigeration component equipment was agreed and competitive bidding commenced. Delivery time for foaming equipment, November 2004.

Bidding for selected set of the refrigeration equipment still in progress.

#### **4. Customs Improvement Program**

Discussion between UNIDO and the NOU has been initiated to find the proper modality to implement this component of the NPP.

#### **5. National Program for Training Service Technicians**

UNIDO communicated with the NOU on preparation of the training manual for service technicians.

#### **6. Financial status (as of 30 September 2004)**

Table 1 shows the financial status of the National ODS Phase-out Plan, first tranche as of 30 September. The expenditure is 75% of the total project costs approved



**Table 1. Financial status of the National ODS Phase-out Plan, first tranche**

NPP Components	Approved US\$	Expenditure US\$	Remarks
<b>Project management</b>			
International consultant	3,000	0	To be obligated by the end 2004
Coordination office set up	3,000	0	Same as above
<b>TOTAL</b>	<b>6,000</b>	<b>0</b>	
<b>Foam Sector Program</b>			
Equipment procurement	43,850	46,543	
Commissioning, start up, trial, training		3,225	
<b>TOTAL</b>	<b>43,850</b>	<b>49,768</b>	
<b>Refrigeration Manufacturing Sector Program</b>			
Equipment procurement	173,000	139,704	Foaming equipment where eligible
Commissioning, start up, trial, training		9,600	
<b>TOTAL</b>	<b>173,000</b>	<b>149,304</b>	
<b>Customs Empowerment program</b>			
Workshop 1x2 days for 20 trainees			
Support of trainees travel	1,000	0	To be obligated by the end 2004
Workshop arrangement	3,000	0	Same as above
Training material	8,000	0	Same as above
International expert	5,000	0	Same as above
Trainers fee	450	0	Same as above
Refrigerant identifiers	10,000	0	Same as above
Contingency	5,000	0	Same as above
<b>TOTAL</b>	<b>34,450</b>	<b>0</b>	
<b>National Project for Training Service Technicians</b>			
Training workshops 40x4 days for 10 trainees			
Material preparation, drafting, translation, printing 500 copies	10,000	0	To be obligated by the end 2004
<b>TOTAL</b>	<b>10,000</b>	<b>0</b>	
<b>GRAND TOTAL</b>	<b>265,300</b>	<b>199,072</b>	Expenditure, 75% as of 30 September 2004

## 7. ODS Consumption

The actual consumption of CFCs in 2003 was 230 ODP tonnes, which was lower than the estimated consumption of 235.3 ODP tonnes. That of TCA was 3.6 ODP tonnes, higher than the estimated consumption of 1.7 ODP tonnes. The total consumption of CFCs and TCA in 2003 was 233.6 ODP tonnes a little lower than estimated consumption of 237 ODP tonnes.

## 8. Conclusion

Most of the milestones in manufacturing sectors set for the first tranche in the National ODS Phase-out Plan for Bosnia and Herzegovina have been achieved, which were of highest priority in the first tranche of the NPP. Activities related to the service sector will be achieved by the end 2004. This achievement along with the project implementation of on-going investment projects will lead to the drastic reduction of CFC/TCA consumption in 2004 toward the compliance status planned in 2007.

**PART 2. ANNUAL IMPLEMENTATION PROGRAMME ; SECOND TRANCHE**

**1. Data**

Country	: Bosnia and Herzegovina
Year of plan	: 2005
# of years completed	: 1
# of years remaining under the plan	: 3
Target ODS consumption of the preceding year	: 167.0 ODP tonnes for CFCs 1.7 ODP tonnes for TCA
Target ODS consumption of the year of plan	: 102.1 ODP tonnes for CFCs 1.1 ODP tonnes for TCA
Level of funding requested	: US\$ 318, 050
Lead implementing agency	: UNIDO

**2. Targets**

<b>Target (CFC):</b>		102.1 ODP tonnes		
<b>Indicators</b>				
		<b>Preceding Year</b>	<b>Year of Plan</b>	<b>Reduction</b>
Supply of ODS	Import	167	102.1	64.9
	Production*	0	0	0
	<b>Total (1)</b>	<b>167</b>	<b>102.1</b>	<b>64.9</b>
<b>Demand of ODS</b>				
Demand of ODS	Manufacturing	88.7	26.9	64.9
	Servicing	78.3	75.2	0
	Stockpiling	0	0	0
	<b>Total (2)</b>	<b>167</b>	<b>102.1</b>	<b>64.9</b>

<b>Target(TCA):</b>		1.1 ODP tonnes		
<b>Indicators</b>				
		<b>Preceding Year</b>	<b>Year of Plan</b>	<b>Reduction</b>
Supply of ODS	Import	1.7	1.1	0.6
	Production*	0	0	0
	<b>Total (1)</b>	<b>1.7</b>	<b>1.1</b>	<b>0.6</b>
<b>Demand of ODS</b>				
Demand of ODS	Manufacturing	1.7	1.1	0.6
	Servicing	0	0	0
	Stockpiling	0	0	0
	<b>Total (2)</b>	<b>1.7</b>	<b>1.1</b>	<b>0.6</b>

\* For ODS-producing countries

### 3. Industry Action

Sector	Consumption Preceding Year (1)	Consumption Year of Plan (2)	Reduction within Year of Plan (1)-(2)	Number of Projects Completed	Number of Servicing Related Activities	ODS Phase-Out (in ODP tonnes)
<b>Manufacturing</b>						
Aerosol	0	0	n.a.	n.a.		n.a.
Foam	40.6	0	40.6	2		40.6
Refrigeration	48.1	26.9	21.2	3		21.2
Solvents	1.7	1.1	0.6	1		0.6
Other	n.a.	n.a.	n.a.	n.a.		n.a.
<b>Total</b>	<b>90.4</b>	<b>28.0</b>	<b>62.4</b>			<b>62.4</b>
<b>Servicing</b>						
Refrigeration	78.3	75.2	3.1	-	3	3.1
<b>Total</b>	<b>78.3</b>	<b>75.2</b>	<b>3.1</b>	<b>-</b>	<b>3</b>	<b>3.1</b>
<b>GRAND TOTAL</b>	<b>168.7</b>	<b>103.2</b>	<b>65.5</b>	<b>6</b>	<b>3</b>	<b>65.5</b>

### 4. Technical Assistance

<b>4.1</b>	Proposed Activity:	<b>Project management</b>
	Objective:	Further strengthening of the national system for project implementation.
	Target Group:	Project management team
	Impact:	Smooth project implementation
<b>4.2</b>	Proposed Activity:	<b>Technical Assistance for Solvent Sector Program</b>
	Objective:	Preparation of terms of reference to phase out TCA at MIK D.O.O. Kupres. To carry out eligible technical assistance through relevant technology transfer, training and equipment.
	Target Group:	<b>MIK D.O.O.</b>
	Impact:	Phase-out of TCA consumption at MIK D.O.O.
<b>4.3</b>	Proposed Activity:	<b>Refrigeration Manufacturing Sector Program</b>
	Objective:	Conversion technology from CFC-12 to HCFC-134a through procurement of necessary equipment like charging boards, vacuum pumps and leak detector for remaining four eligible companies.
	Target Group:	Relevant enterprises
	Impact:	Phase-out of CFC-12 consumption at relevant

		enterprises
<b>4.4</b>	Proposed Activity:	<b>National Project for Training Service Technicians</b>
	Objective:	Training of trainers workshops (30x4 days)
	Target Group:	300 trainees
	Impact:	Trainers trained and certified
<b>4.5</b>	Proposed Activity:	<b>National Recovery and Recycling Project</b>
	Objective:	Training of staff for recovery centers
	Target Group:	Staff of recovery centers
	Impact:	Five recycling centers established

## 5. Government Action

Policy/Activity Planned	Schedule of Implementation
Type of Policy Control on ODS Import: Enforcement of relevant regulations related to ODS phased reduction and complete phase-out and monitoring of their implementation.	<b>During 2005</b>
Public Awareness Fill in relevant Ozone information on the NOU web-site, Ozone officers appearance at TV, etc.	<b>During 2005</b>
Others	

## 6. Annual Budget

Activity	Planned Expenditures (US \$)
Project management	20,000
Technical assistance for solvent sector program	20,000
Refrigeration Manufacturing Sector Program	100,000
Technical assistance for the refrigeration service sector establishment of training centers, national project for training service technicians, provision of service equipment and recovery tools	155,860
<b>TOTAL</b>	<b>295,860</b>

## 7. Administrative Fees

US\$ 22,190