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COUNTRY PROGRAMME: BOSNIA AND HERZEGOVINA

This document consists of:

- Country Programme Evaluation Sheet (prepared by the Fund Secretariat)
- Comments and Recommendations of the Fund Secretariat
- Transmittal Letter from the Government of Bosnia and Herzegovina
- Country Programme Cover Sheet
- Country Programme (Executive Summary)

BOSNIA AND HERZEGOVINA COUNTRY PROGRAMME EVALUATION

Environmental Steering Committee, Ministry for the Environment

Status of ratification of the Vienna Convention and the Montreal Protocol

	Signature	Ratification	Entry into force
Vienna Convention (1985)		06-Mar-92	04-Jun-92
Montreal Protocol (1987)		06-Mar-92	04-Jun-92
London Amendment (1990)			
Copenhagen Amendment (1992)			

Production of controlled substances: No controlled substances produced

Consumption of controlled substances (1998) 90.0 metric tonnes
90.0 weighted tonnes (ODP)

(tonnes)	CFC-11	CFC-12	CFC-113	CFC-114	CFC-115	TOTAL Halon121	Halon130	TOTAL	CTCMCF	TOTAL	Me-Br
ODS	30.0	60.0						90.0			
ODP	30.0	60.0						90.0			

Distribution of ODP by substance: CFC 100.0% Halon CTC and MCF

Distribution of ODP by sector: Aerosol Foam Halon Refrigeration Solvent Other

Consumption (ODP tonnes): 0.0 0.0 0.0 90.0 0.0 0.0

Percent of total: 100.0%

Country Programme

Duration of country programme: 3 years (1999-2001)

ODS phase out target: Complete phase out of CFC-11 by end of 2001; complete phase out of CFC-12 by end 2002

Phase out priority area: Foam and refrigeration sectors

Cost of activities in country programme: \$6,135,000

Strategy:

The Government's objective is to ensure the phase-out of ODS according to the schedule set up by the Montreal Protocol. The proposed strategy includes, inter alia, the development of laws and regulations including contingent bans and fines, and a licensing and monitoring system for import/ export of ODS and equipment containing ODS; development of economic incentive to support the use of non-ODS; identification and preparation of investment projects and monitoring of the refrigerant management plan; development of publicity campaigns through mass media to raise the awareness of the general public of the harmful effects of continued ODS use

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT

COMMENTS

1. ODS consumption data in Bosnia and Herzegovina was estimated at 480 metric tons in 1991, as reported in the country programme (data reported to the Ozone Secretariat for that year indicates a consumption of 145 ODP tonnes). During the war period (1992-1995) ODS consumption data could not be collected.
2. A preliminary survey carried out after the war period, estimated the 1998 ODS consumption at 90 tonnes (30 tonnes of CFC-11 and 60 tonnes of CFC-12). The Government of Bosnia and Herzegovina has committed to phase out CFCs by the end of the year 2002.
3. UNIDO was requested to provide an estimate of the ODS consumption for the year 1995-1997 (the baseline for determination of the country's compliance with the Montreal Protocol), since this information was not included in the country programme. UNIDO informed, after consultation with the Government of Bosnia and Herzegovina, that only CFC consumption for the year 1995-1997 was able to be estimated, at 80, 76, 78 tonnes, respectively.
4. In 1991, the largest use of CFC-11 was in the foam sector (200 tonnes equivalent to 42% of the total consumption), used in pre-mixed polyurethane systems (Polihem Company) followed by refrigeration manufacturing companies and servicing workshops (120 tonnes). In addition, 25 tons of CFC-11 was used for manufacturing flexible polyurethane foams (Inga Company) and 15 tonnes of CFC-11 and CFC-12 for aerosol products (Astro Ltd.).
5. There is one large manufacturer of household refrigerators and freezers (Bira Company), which was established in 1985, with an annual production capacity of 350,000 refrigerators and vertical freezers. In 1998 the company resumed operations, with an initial production estimated at 40,000 units, to be increased to 100,000 units by the year 2000, and to full capacity in the following years. There are also two manufacturers of commercial refrigerators (Soko Company and IPV Citluk).
6. During the war period, CFCs were used only for servicing refrigeration equipment. In 1998, this consumption was estimated at 90 tonnes. The servicing sector consists of several larger enterprises having a number of branches in different towns with up to 20 service technicians, and several hundreds of small, one-person enterprises. The total number of service technicians is estimated at 1,000. Neither the service industry nor the service technicians have any professional organization or association.
7. The production of polyols started in 1976 and polyurethane foam systems in 1980 with an annual capacity of 5,000 tonnes. In 1990, the company converted to 50% CFC reduced technology for the production of polyurethane foam. In August 1998, the company started once again production of polyurethane systems; however, data on current production levels are not included in the country programme.

8. The Government of Bosnia and Herzegovina has prepared a draft Refrigerant Management Plan with assistance from UNIDO. The project proposal will be submitted for consideration by the Executive Committee at a future meeting.

9. The country programme also includes a project for the establishment of an Ozone Unit within the Environmental Steering Committee (institutional strengthening) at a cost of US \$200,000. The Fund Secretariat's comments and recommendations on this request are presented under UNIDO work programme (UNEP/OzL.Pro/ExCom/27/18).

RECOMMENDATIONS

The Fund Secretariat recommends as follows:

1. To approve the Bosnia and Herzegovina Country Programme. Approval of the Country Programme does not denote approval of the projects identified therein or their funding levels.
2. To request the Government of Bosnia and Herzegovina to present annually information to the Executive Committee on progress being made in the implementation of the country programme, in accordance with the decision of the Executive Committee on implementation of country programmes (UNEP/OzL.Pro/ExCom/10/40, para 135). Using the approved format, the initial report, covering the period 1 April 1999 to 31 December 2000, should be submitted to the Fund Secretariat no later than 1 May 2001.

Country Programme Cover Sheet

Country: **Bosnia and Herzegovina**
Lead National Agency: **Environmental Steering Committee**
Lead Implementation Agency: **UNIDO**
Period Covered by the Country Programme: **1999-2001**

1. Phase-out Schedule

Substances	Current consumption in 1998, ODS tons	Estimated total consumption till Phase-out, ODS tons	Planned year of Phase-out
Annex A/I			
CFC-11	30	80	2001
CFC-12	60	190	2002
Annex A/II	-	-	-
Annex B/I	-	-	-
Annex B/II	-	-	
Annex B/III	-	-	-
Annex C	3	40	As per MP
Annex E	-	-	-
Total	93	310	

2. Government Action Plan

Item/Activity - Responsible body	1999	2000	2001
1 Establishing an (Inter-Ministerial) Ozone Commission in accordance with rules of working of the Environmental Steering Committee Environmental Steering Committee	Establishing the Ozone Commission. General management of the ODS phase-out process. Co-ordination of implementation of the Country Programme, the Government Action Plan and of the Refrigerant Management Plan.	Continuation. Reviewing/checking the execution of GAP and RMP	Continuation. Assessment of effectiveness of ODS Phase-out.
2 Establishing an Ozone Unit/Ozone Focal Point in charge of ODS Phase-out under the Environmental Steering Committee (1 person in Sarajevo for the Federation of Bosnia and Herzegovina, 1 person in Banja Luka for the Republika Srpska, in Sarajevo liaising with the Ministry of Foreign Affairs. Environmental Steering Committee and Entity Governments	Co-operation with UNEP Ozone Secretariat and UNIDO. Preparation of materials for the Ozone Commission's consideration, instructions and advice to ODS consumer enterprises. Participation in finalising the phase-out programme. Project management. Monitoring of ODS consumption. Preparation of reports to the UNEP Ozone Secretariat and UNIDO.	Continuation. Participation in the realisation of the phase-out programme. Assistance to the Ozone Commission of the GAP, RMP and the Projects.	Continuation. Assistance to the Ozone Consumption in assessment of effectiveness of the measures taken and of ODS phase-out-
3 Regular reporting of annual ODS consumption and of optional items of which reporting is requested Environmental Steering Committee through the Ministry for Foreign Affairs	Report on ODS consumption in 1998.	Report on ODS consumption in 1999.	Report on ODS consumption in 2000.
4 Amendments and extension of the environmental legislation in force to create legal basis for (accelerated) ODS phase-out Entity Governments with co-ordination of the Env. Steering Committee	Preparation and adoption of legal and regulatory acts.	Review of effectiveness.	Continued review of effectiveness, preparation and adoption of further amendments/extensions, as necessary.
5 Bans of ODS for new facilities and products. Entity Governments with co-ordination of the Env. Steering Committee	Banning the use of ODS for new facilities and products, furthermore the import of products containing ODS, by preparing and adopting a by-law.	Control of execution and effectiveness.	Continuation. Amending and/or extending the by-law as necessary.
6 Establishing a licensing and quota system for ODS import/export. Council of Ministers (of BIH) in co-operation with Entity Governments	Designing and introduction of a mechanism of ODS import/export licensing system including the identification of ODS importers and of determining and distributing annual quotas by preparing and adopting a by-law to law on foreign trade.	Start/continue to issue import/export licenses to registered importers and to distribute import quotas. First review the working of this mechanism.	Continuation. Review of the licensing and quota system and introduction of modification(s) as appropriate.
7 Establishing a supporting economic mechanism. Entity Governments with co-ordination of the Env. Steering Committee	Designing economic incentives and disincentives (tax privileges and surtaxes) to support accelerated phase-out, preparing and adopting a by-law	Full-scale introduction of the economic mechanism, start to review its effectiveness	Continuation. Amending and/or extending the by-law as necessary.
8 Establishing of ODS monitoring system. Council of Ministers (of BIH) in co-operation with Entity Governments	Designing together with Customs Services and introducing a monitoring system, harmonised with the Licensing and Quota System, for import/export of ODS and products containing ODS.	Operating the monitoring system.	Continuation. Review the effectiveness. Introduction of modifications if necessary.

<p>9 Education and training.</p> <p>Entity Governments</p>	<p>Organising education/training courses on Entity, regional and cantonal level for all civil servants involved in licensing, monitoring and phase-out of ODS.</p>	<p>.Education/training of Customs Service officers and involved Statistical Service officials. Start training refrigeration service technicians (explained in more detailed in the RMP)</p>	<p>Full training of refrigerant service technicians. Repeated training of those involved in licensing, monitoring and phase-out.</p>
<p>10 Implementation of projects, including projects for Refrigerant Management.</p> <p>Entity Governments (Ministries for Industry), Ozone Unit, Chamber of Economy, Unions of Small Businesses, Enterprises</p>	<p>Preparation of detailed project proposals of the proposed projects listed in the Project Summary Table.</p>	<p>Implementation of projects</p>	<p>Implementation of projects</p>
<p>11 Support for enterprises and research centres to encourage the introduction of alternative technologies.</p> <p>Council of Ministers, Entity Government</p>	<p>Seeking for bilateral agreements with foreign partners and for participation in international programmes. Conclusion of such agreements.</p>	<p>Participation of interested enterprises and research posts in bilateral and international programmes. Reviewing these activities.</p>	<p>Continuation. Improving these activities.</p>
<p>12 Raising of public awareness.</p> <p>Entity Governments, Chambers of Economy</p>	<p>To design a detailed programme of public awareness raising. To start permanent dissemination of information on the objectives and achievements of ODS phase-out through mass media.</p>	<p>Continuation. Full-scale public awareness raising campaign, including a campaign on servicing of refrigeration equipment (see more detailed in the RMP)</p>	<p>Continuation. Repeated campaign on servicing of refrigeration equipment.</p>

3. Projects

Project	Implementa- tion Period	Assistance sought from MF, in US\$	ODP tonnes phased-out	Cost effec- tiveness in US\$/kg
1 Institutional Strengthening	1999-2002	200,000	n/a	n/a
2 BIRA Refrigerator Co, Bihać Conversion to non-ODS technology in the production of domestic refrigerators	1999-2001	2,000,000	120	16.7
3 SOKO, Tuzla and IPV, Èitluk Study of conversion to non-ODS technology in the production of refrigerated showcases and cold rooms	1999	15,000	n/a	n/a
3a Conversion to non-ODS technology in the production of showcases (optional)	2000-2001	(850,000)	60	14.2
4 INGA Furniture Co, Gradiška Conversion of flexible PUR foam production to liquid CO ₂	1999-2000	800,000	25	32.0
5 POLIHEM, Tuzla Study of changing PUR systems production CFC-11 free	1999	15,000	n/a	n/a
5a Change to CFC-11 free PUR systems (optional)	2000-2001	(1,100,000)	200	5.5
6 Astro Co, Sarajevo Conversion to non-ODS propellant in aerosols can filling	2000	250,000	15	16.7
7 Refrigerant Management*	1999-2002	970,000	60	n/a
Total a) without optional projects	1999-2002	4,250,000	220	19,3**
b) optional projects included		6,200,000	480	12,9**

* See detailed in the Table of Projects of the Refrigerant Management Plan

** Including non-investment projects

4. Costs

Costs of Activities and Projects in the CP in US\$

a) without optional projects 4,185,000

b) optional projects included 6,135,000

Estimate cost of Complete ODS Phase-out in US\$

a) 4,800,000

b) 6,950,000

Estimated Cost Effectiveness for MF projects in US\$/kg

a) 19,2

b) 12,9

Estimated Cost Effectiveness for Complete Phase-out in US\$/kg

a) 21,8

b) 14,5

EXECUTIVE SUMMARY

Background

Bosnia and Herzegovina became an independent state in 1992 by the dissolution of the former (Socialist Federated Republic of) Yugoslavia. It has an area of 51,223 square kilometres and recently has a population of 3.2 million. Its neighbours are Croatia and Yugoslavia (Serbia and Montenegro). A normal development of economy and society as well as the adaptation to the changed conditions after independence was drastically interrupted by war. The war lasted from 1992 to 1995 and was ended by the Dayton peace agreement in November 1995.

Bosnia and Herzegovina was amongst the republics of the former Yugoslavia one of the less developed ones. Its GDP in 1990 was about 10 billion US dollars, which corresponds to about 2200 US\$ per capita. The largest part of its territory is mountainous. As a consequence, forestry was highly developed, whereas it was not self-supplying in food. The contribution of the most important branches of economy to the GDP was: industry 43 %, trade 18 %, forestry 11 %, agriculture 9 %. About 57 % of the GDP was realised by trade within the former Yugoslavia, 22 % by export outside and 21 % was consumed in the republic.

Before the war the population was 4.5 million. The war caused the loss of 200,000 lives and well over 1 million refugees left the country. The damages caused by war are estimated to be about 30 billion US dollars. As a consequence of war not only the normal functioning of the economy was disrupted, but also the public administration was totally destroyed. According to the Dayton peace agreement it is going to be replaced by a basically different new structure of the state and public administration.

Most of the government functions and responsibilities are delegated to the Governments of the Entities, i.e. that of the Federation of Bosnia and Herzegovina and that of the Serb Republic (Republika Srpska). Above this level, i.e. on the level of the State of Bosnia and Herzegovina are the Council of Ministers of Bosnia and Herzegovina and three ministries, namely the Ministry of Civil Affairs, Ministry for Foreign Affairs and Ministry of Foreign Trade and Economic Relations. Below the Entity level new regional (cantons) and local (municipal) authorities, administrative bodies were established. The capital of Bosnia and Herzegovina is Sarajevo and it is also the seat of the Government of the Federation of Bosnia and Herzegovina; the seat of the Government of Republika Srpska is in Banja Luka, some 230 kilometres to north-west from Sarajevo. The language spoken in the whole country is (practically) the same. Officially three language are used: Bosnian, Croat and Serb, the latter using the Cyrillic alphabet.

Current Situation

The current situation of ODS consumption is characterised by the consequences of the war. In the last pre-war year, in 1991 the total consumption of Annex A substances was 480 tons, which corresponds to a per capita consumption of about 0.11 kg/year.

The biggest share of ODS consumption was CFC-11 in pre-mixed PUR systems with 200 tons or 42 %, followed by use for insulating foam in refrigerator manufacturing with 120 tons or 25 % and of CFC-12 for refrigeration (manufacturing and service) also with 120 tons or 25 %. The consumption for flexible PUR foams was 25 tons of CFC-11 or 5 % and that for aerosol production 15 tons or 3 % (mixture of CFC-11 and CFC-12).

After the war several ODS consuming industries resumed their production activity as late as 1998; the only aerosol can filling operation has not yet restarted.

As far as forecast consumption it was estimated, that unconstrained ODS consumption would increase by the year 2010 to 510 tons.

For the time being there are no control measures in place to monitor, to control and to restrict ODS consumption. An import licensing system is also lacking. An understanding between the Ministries competent for environment issues of the two Entities was reached in July 1998 to establish an Environmental Steering Committee under their common supervision. It was decided in September 1998 that an Ozone Unit/Focal Point would be established at this Committee. It is expected that this set-up, respectively the delegation of responsibilities would be approved by the Council of Ministers of Bosnia and Herzegovina.

Implementing Phase-out

As it can be seen, institutional and policy framework have to be elaborated to create a workable and supporting background for the elaboration of a detailed Action Plan by the Government and implementing the Country Programme. A number of useful pieces of information for this purpose are described in this draft Country Programme. It is expected that the Government would approve the Country Programme, including the proposed phase-out projects and Refrigerant Management Plan and submit it by the end of 1998 to the Executive Committee of the Multilateral Fund with the expression of its commitment to implement it.

A summary table of the proposed phase-out projects is given on the next page.

Further assistance needed

As principal decisions to establish an Environmental Steering Committee and an Ozone Unit/Focal Point were taken just recently and neither adequate funds nor qualified staff are available at the existing competent government bodies for setting up and start to operate the Ozone Unit, immediate financial and technical support is most desirable. This earliest possible/immediate support could be given by granting an Advance Phase of the Institutional Strengthening project or even more preferably by granting an interim funding by some other source for about 6 months before the approval of the Country Programme by the Multilateral Fund. This interim funding, estimated to be in the range of 12,000-18,000 US\$, could be refunded, if necessary, from the Institutional Strengthening project. A quick decision on this issue would certainly help considerably the ODS phase-out activity and the implementation of the Country Programme in Bosnia and Herzegovina.

A short note on this issue, as requested by the representative of the Regional Environmental Centre for Central and Eastern Europe at the first meeting of the Environmental Steering committee, is attached as an Appendix to this document.