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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Fifty-fourth Meeting
Montreal, 7-11 April 2008

TURKMENISTAN COUNTRY PROGRAMME UPDATE

1. UNEP advised the Secretariat of the wish of the Government of Turkmenistan to update the Executive Committee on the activities that the country is implementing to phase out CFCs. In this context, a country programme update prepared by Turkmenistan with the assistance of UNEP CAP is hereby presented to the Committee for information only.

2. The CPG update as submitted by UNEP is attached to this document.

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Country Programme on
Ozone-depleting Substances phase-out

TITLE PAGE OF THE COUNTRY PROGRAMME

Country:	Turkmenistan
Leading national organization:	Ministry of Nature Protection of Turkmenistan
Leading executing organization:	UNEP, UNDP
Duration of the Country Programme:	1999-2010
Base years for CFC	1995, 1996 and 1997
Volume of freezing the consumption level of CFC:	37.33 t ODS

Table 1.
Schedule of ODS phase-out

Annex/group/substance	Base level		Freeze	Reduction		Quota (kg)
	Years	Quantity		%	Terms	
Annex A - Group I: Chlorofluorocarbons (CFC-11, CFC -12, CFC -113, CFC -114 and CFC -115) Measures, applicable to production and consumption.	1995-97	37 333 kg	1/7/1999	50% 85% 100%	1/1/2005 1/1/2007 1/1/2010 (with possible essential use exemptions)	18 666 kg 5 599 kg 0,0 kg
Annex A - Group II: Halons (halon1211, halon1301 and halon 2402) Measures, applicable to production and consumption.	1995-97		1/1/2002	50% 85% 100%	1/1/2005 1/1/2010 (with possible essential use exemptions)	
Annex B - Group I: Other fully halogenated CFCs (CFC -13, CFC -111, CFC -112, CFC -211, CFC -212, CFC -213, CFC -214, CFC -215, CFC -216, CFC -217) Measures, applicable to production and consumption.	1998-2000		-	20% 85% 100%	1/1/2003 1/1/2007 1/1/2010 (with possible essential use exemptions)	
Annex B – Group II: Carbon tetrachloride Measures, applicable to production and consumption.	1998-2000		-	85% 100%	1/1/2005 1/1/2010 (with possible essential use exemptions)	

Annex B - Group III: 1,1,1-Trichloroethane(methyl chloroform) Measures, applicable to production and consumption.	1998-2000		1/1/2003	30% 70% 100%	1/1/2005 1/1/2010 1/1/2015 (with possible essential use exemptions)	
Annex C – Group I: HCFCs Measures, applicable to production and consumption. *Consumption*	2015		1/1/2016	100%	1/1/2040	
Annex C – Group I: HCFCs Measures, applicable to production and consumption. *Production*	Average production and consumption in 2015					
Annex C – Group III: Bromochloromethane Measures, applicable to production and consumption	-	-	-	100%	1/1/2002 (with possible essential use exemptions)	
Annex E: Methyl bromide Measures, applicable to production and consumption, amounts, used for quarantine and pre-shipment applications exempted	1995-98	5950 kg	1/1/2002	20% 100%	1/1/2005 1/1/2015 (with possible essential use exemptions)	4760 kg 0,0 kg

Table 2.
Schedule of ODS phase-out over the base years
1995 -1997 (Appendix A - Group I and Group II)

Substance name	Current consumption in 2005, tons taking into account ODP	Real total consumption during the base years 1995-1997, tons taking into account ODP	The planned period of ceasing the utilization
Appendix A - Group -I			
$CFCl_3$, CFC-ll	0,00	0,00	1994*
CF_2Cl_2, CFC -12	17 938	37,33	2010
Total in group I	17 938	37,33	
Appendix A - Group -II			
Halon 1211	0,00	0,00	2010
Halon 2402	0,00	0,00	2010
Total in group II	0,00	0,00	
Grand total	17 938	37,33	

Note: Since 1994 the utilization of aerosols using CFC -11 have been completely terminated in the country.

Table 3.
Schedule of ODS phase-out over the base years
1998 -2000 (Appendix B - Group II)

Substance name	Current consumption in 2005, tons taking into account ODP	Real total consumption during the base years 1998-2000, tons taking into account ODP	The planned period of ceasing the utilization
Appendix B - Group - II			
CCL_4, (CTC) Carbon tetrachloride	0,00	1,33	2010
Total in group II	0,00	1,46	
Grand total	0,00	1,46	

Table 4.
Schedule of ODS phase-out over the base years

1995 - 1998 (Appendix E)

Substance name	Current consumption in 2005, tons taking into account ODP	Real total consumption during the base years 1995-1998, tons taking into account ODP	The planned period of ceasing the utilization
Appendix E			
CH_2Br, Methyl bromide	10,01	5,95	2015
Grand total	6,006	3,57	

Table 5.
Schedule of ODS phase-out over the base year 2015
(Appendix C - Группа I)

Substance name	Current consumption in 2005, tons taking into account ODP	Real total consumption during the base years 1998-2000, tons taking into account ODP	The planned period of ceasing the utilization
Appendix C - Group I			
CHF_2C1, HCFC-22	68 248	0,00	As it will be envisaged by the Meeting of Parties of the Montreal Protocol on 1.01.2040
Grand total	3,54	0,00	

Table 6.
Plan of actions of the Government

Year	Actions	Range of application	Planned effect
1999-2002	Strategy for further ODS phase-out, including the necessary ODS monitoring and control	All	Improvement of the monitoring of the plan of actions, securing a reliable control over ODS utilization and emission, involvement and public awareness. Encouragement of reduction of ODS import, and ODS-containing materials and equipment
1999-2005	Development of potential projects, which the Government and local industry need under the international support for easing the process of ODS phase-out.	All	Phase-out of ODS utilization and importation
1999-2007	Training of repair and customs personnel	All	Phase-out of ODS use when repairing and servicing equipment, introduction of equipment and technologies, ensuring ODS safe storage, utilization, recycling or destruction. Improvement of the customs control system.
2002-2005	Improvement of the licensing and quota system of ODS import/export	All	Phase-out of ODS utilization
1999-2010	Betterment of the law base regulating ODS import/export	All	Phase-out of ODS utilization
2001-2008	ODS recovery and recycling	All	ODS phase-out
2007-2010	Informing and involvement of the public	All	Organization of actions for informing the public, involvement of the public in the discussion of plans and actions aimed to ODS phase-out.
2007-2010	Phase-out of methyl bromide usage	Agriculture	Methyl bromide's replacement by alternative fumigants
2007-2010	Phase-out of halons utilization	Civil aviation and fire extinguishing system	Halons' replacement by alternative substances

Year	Actions	Range of application	Planned effect
2007-2010	Phase-out of MDI utilization	Ministry of Health	MDI's replacement by alternative substances

Table 7.
Projects submitted for financing by GEF

Period	Project name	Implementing agency	Amount of phased-out substances taking into account ODP, t	Project cost, US dollars	Government contribution, US dollars	Funds requested from GEF, US dollars
1999	«Development of the Country Programme» of Turkmenistan	UNOPS UNEP, UNDP MNPT		16 000		16 000
1999-2005	«Institutional strengthening for the Montreal Protocol implementation in Turkmenistan»	UNEP, UNDP, MNPT		138 493	22 800	115 693
1999-2002	«Project on refrigerants' recovery and recycling»	UNOPS UNDP MNPT	7,53	139 772		139 772
2001-2005	«Training programme in advanced technologies in refrigeration sector and training programme for customs officers»	UNEP, UNDP, MNPT	6,53	143 755		89 794,63

Table 7a.
Projects financed by Multilateral Fund.

Period	Project name	Implementing agency	Amount of phased-out substances taking into account ODP, t	Project cost, US dollars	Government contribution, US dollars	Funds requested from MF, US dollars
2005-2008	«Institutional strengthening in Turkmenistan – Phase 1»	UNEP, MNPT		115 693		115 693
	Total:					115 693

Table 7b.
List of activities on assistance to Turkmenistan under the Regional Ozone Network for Europe and Central Asia, financed by the Multilateral Fund

Period	Project name	Implementing agency	Amount of phased-out substances taking into account ODP, t	Project cost, US dollars	Government contribution, US dollars	Funds requested from MF, US dollars
October 2006-February 2007	Carrying out of the Regional Ozone Network for Europe and Central Asia	UNEP, UNDP, MNPT		16 000		16 000
2005	Actions under the Regional ECA Network "Public awareness raising"	UNEP, MNPT		3 700		3 700

2006-2007	Actions under the Regional ECA Network "Upgrading of the Country's Programme"	UNEP, MNPT		12 000		12 000
	Total:					31 700

8. Scenario of ODS restriction Special terms and abbreviations

GDP	Gross domestic product
HBFC	Hydrobromfluorocarbon
HS	Harmonized system
HFC	Hydrofluorocarbon
HCFC	Hydrochlorfluorocarbon
GEF	Global Ecological Fund
ODM	Overflow defense mechanism
MACI	Mobile air conditioning installations
MP	Montreal Protocol on ozone-depleting substances
MF	Multilateral Fund
OSCE	Organization for Security and Cooperation in Europe
U.N.O.	United Nations Organization
LLC	Limited liability company
ODS	Ozone-depleting substances
ODP	Ozone-depleting potential
PA	Production association
UNDP	United Nations Development Programme
PF	Polyurethane foam
RMP	Refrigeration Management Plan
CIS	Commonwealth of Independent States
JV	Joint venture
TCA	Technical cleaning agents
CNFEA	Commodity nomenclature of the foreign economic activity
TR	Transport refrigerators
CFC	Chlorfluorocarbon
UNEP	United Nations Environment Programme
UNEP DTIE	UNEP Division of Technology, Industry and Economics

SUMMARY

General information

Turkmenistan signed and ratified Vienna Convention on ozone layer protection (Vienna Convention) and Montreal protocol on ozone-depleting substances (Montreal Protocol) on November 18, 1993. London amendment to the Montreal Protocol was signed and ratified on March 15, 1994.

Originally, Turkmenistan was classified as Article 2 Party of the Montreal Protocol on controlled substances.

In November 2004, at the 16th Meeting of the Parties of the Montreal Protocol in Prague, on demand of Turkmenistan government, an issue of Turkmenistan reclassification as a Party acting under point 1 of Article 5 of the Montreal Protocol had been considered.

Since 2005 Turkmenistan was reclassified by the Decision XVI/39, as a Party, acting under the point 1 of the Article 5 of the Montreal Protocol.

The Ministry of Nature Protection of Turkmenistan is the main governmental structure in charge of the implementation of phase-out works on consumption and replacement of ozone-depleting substances (ODS) by alternative substances. The Minister of Nature Protection of Turkmenistan is accountable for the implementation of the Vienna Convention and the Montreal Protocol in the State.

Turkmenistan is the multi-national state. Representatives of more than 40 nationalities reside on its territory, including the Turkmens – over 90%. During recent ten years the population size has been annually increasing in average by 3,5%. By January 1, 2005, the number of the country's inhabitants was 6 million 550 thousand people. More than 50% of the country's population are people of the able-bodied age. Mean age is 24 years. The country's population possesses a high educational level (literacy 99,8%).

Turkmenistan is one of the five Central Asian countries, being the second bi size among them. It lies in the south-western part of the region in the desert zone, northward from the Kopetdag ridge of the Turkmen-Khorasan mountain system, between the Caspian Sea in the west and the Amudarya River in the east. The geographical position of the country territory is defined by the following coordinates: 35°08N and 42°48N latitudes and 52°27E and 66°41E longitudes. The country's territory stretches from the west to the east for about 1100 km, and from the north to the south – for about 650 km. In the north Turkmenistan borders with the Republic of Kazakhstan, in the north-east and east – with the Republic of Uzbekistan, in the south-east – with Afghanistan, in the south – with the Islamic Republic of Iran. The Caspian Sea is the western natural border of the country.

The territory of the country belongs to the inland basins of the Aral and Caspian Sea.

About 80% of the northern and central part of the territory of Turkmenistan is occupied by the sandy desert of the Turan lowland – Central, Zaunguz and South-Eastern Garagums. The lowest point of the country (81 m below the sea level) is Akjakaya depression that locates in Zaunguz Garagum desert.

About 20% of Turkmenistan territory is occupied by mountains. In the south the sandy desert alternates with hills and foothills of the Kopetdagh – mean height (up to 2942 m above the sea level) Mountains; isolated ridges locate to their north: Malyi (up to 777 m) and Bolshoi (up to 1881 m) Balkhans. From the north the Kopetdagh Mountains is adjoined by a pediment, which closes up with the Caspian low-lying plain in the west. In the south-east Turkmenistan bounds are "transgressed" by the northern foothills of Paropamiz – Badghyz elevation (up to 1267 m) and Karabil elevation (up to 984 m), divided by the Murghab River. In the east there are Koitendagh Mountains (the highest point of the country – up to 3139 m above sea level) – spurs of the Ghissar ridge. In the west of Turkmenistan there is the Krasnovodsk plateau (up to 308 m), in the north-west – the southern margin of Ustyurt plateau with its elongated flat elevations. The territory of Turkmenistan is 491.2 thousand km^2.

Turkmenistan climate is sharp continental and exceptionally dry. Its continentality is displayed in frequent and great (considerable) changes of meteorological elements in the diurnal and annual variation, and its aridity – in scanty amount of atmosphere precipitations, high air dryness and low cloudiness.

Turkmenistan's development in conditions of state independence and positive neutrality has opened up new vistas for the country's economic and social progress, cultural and spiritual renovation of the society.

The analysis of the state of the country's economics testifies that within the years of independent development the structural transformations have secured the progressive development of economics and its major branches.

Reforms that have been carried out during the years of independence are first of all directed at the development of the processing branches, increase of their export potential, encouragement of the modernization of the functioning works and the establishment of new ones. During these years, the majority of previously functioning enterprises has been reconstructed, 698 industrial objects equipped with advanced and up-to-date technologies have been erected, thus, promoting the growth of competitiveness of products they manufacture both on the domestic and foreign market.

The efficiency of the country's economics development is especially brightly characterized by the summarized index - gross domestic product (GDP). Yet, in the first half of the 90's Turkmenistan economics and, consequently, GDP volume underwent considerable fluctuations. An acute dependence on import of a rather considerable nomenclature of material and technical resources, food and other consumer's goods was observed.

While possessing rich raw material stocks and tremendous potential, prior the independence was gained, the country's economics had a narrow raw materials orientation. Extractive branches prevailed, and farming industry

specialized in growing technical crops (raw cotton). The food complex was not actually developed. More than 70% of the country's requirements in the final products were provided by dint of import.

In 1999-2001, the industry share in GDP volume had already been 31-38%. Thereat, in the structure of the industry's added value the ratio of extractive branches had reduced nearly twice and amounted to 36%, and the light and food ones – had increased up to 45%.

Wide-ranging agrarian reforms had been carried out by the country within the period under analysis. While the priority of the agricultural branch – cotton growing - is maintained, grain farming has been intensively developed and the foundation for a dynamic development of the animal husbandry has been laid. The undertaken measures have allowed solving the problem of the population's supply with essential foods at the expense of domestic manufacture. In the structure of the country's GDP the ratio of agriculture is 26%.

Large-scale reforms and structural reorganizations, having been conducted in the country during the years of independent development, as well as large investments have secured the progressive development of the country and major branches of its economics. The efficiency of conducted reorganizations are especially brightly characterized by GDP growth rate which amounted to 116% in 1999, 118% - in 2000, and 120.5% - in 2001. High growth rates have been attained actually in every branch of economics.

At present two equal sectors are functioning in agriculture: state and private. Thereat, the centre of gravity is being shifted towards the private commodity consumer.

In 2000, 74% of total products of the branch fell on the private sector.

In 2000, 1705 thousand tons of wheat were gathered, in 2001 – more than 2 million tons and in 2002 – 2311 thousand tons, whereas, in 1991 this index amounted only to 205,6 thousand tons, then in 2005 it was 1525 thousand tons. Cotton growing is another strategic branch of the country's agriculture. In 2001, cotton gathering exceeded the level of the year 2000 by 13%.

The oil and gas complex plays a key part in the structure of the country's industry. About 22% of total capital investments were invested in it through the period spanning 1991-2001 inclusive. As the result, during the aforementioned period oil extraction has increased 1,8 times, and in 2001 gas production has increased by 20% as compared with the previous year.

The stability of the country's economics is ensured by the infrastructure development, wherein transport and communication system occupies a special place.

Motor roads stretching for more than 13,6 thousand km connect the capital of the country with other cities and velayats centres.

The country's railway network is more than 2,5 thousand km.

Nowadays, air transport is being intensively developed in the country. New airports have been built and existing airports are being modernized; they are servicing both international and domestic airlines. The material and technical basis of the civil aviation is being strengthened, and flights' geography is being extended.

During the years of independence, the volume of the goods' carriage by sea has been increased significantly (6 times). Turkmenbashi port, the "sea gate" of the Central Asian region, is the big transshipment point of Turkmenistan and an important link in the international Eurasian transit corridor.

Current situation

In accordance with the Montreal Protocol, 86 196,01 metric tons of ozone-depleting substances (ODS) were used in Turkmenistan in 2005, or taking into account ODP – 21 697,65 tons. The share of substances, listed in Appendix A of the Montreal Protocol with ODP consideration, is 17 938 (82,67%), listed in Appendix C – 68 248 tons ODP (17,30%) and listed in Appendix E – 10,01 tons ODP (0,027%). The level of freezing the consumption of substances given in list A and B is 18 666 tons ODP per year.

Table 9.
ODS import and consumption in 2005, tons taking into account ODP

Substance	Import	Consumption	ODP	Consumption taking into account ODP	%
Appendix A – Group I					
CFC-11	0,00	0,00		0,00	
CFC-12	17 938	17 938	1,0	17 938	

Total under Appendix A	17 938	17 938		17 938	82,67
Appendix B- Group II					
CTC (carbon tetrachloride)	0,00	0,00	1,1	0,00	
Total under Appendix B	0,00	0,00		0,00	
Grand total under Appendixes A and B	17 938	17 938		17 938	82,67
Appendix C – Group I					
HCFC-22	68,248	68,248	0,055	3 753,64	17,30
Appendix E					
Methyl bromide	10,01	10,01	0,6	6,006	0,027
Grand total	86 196,01	86 196,01		21 697,65	100

ODS production isn't available in Turkmenistan, as well as the manufacture of ODS-containing equipment.

As concerns agriculture, in 1998 the Food Industry Association purchased 1 800 kg of methyl bromide, which were completely applied for soils treatment in greenhouses. In the same year 1998, methyl bromide amounting to 22 000 kg was purchased by IE "Ussat".

In 2003 "Turkmengallaonumleri" Association bought 32 000 kg of methyl bromide for treating store premises and for soils treatment in greenhouses

Actually, in 2003 5 690 kg of methyl bromide for grain-storing premises' fumigation, for the presowing treatment of legumes and cereal crops and for the soil treatment in greenhouses were used in the agriculture on the territory of Turkmenistan.

Realization of the phase-out programme

Turkmenistan Government expresses its firm resoluteness to strengthen and develop cooperation with the international community, adhering to provisions of the Montreal Protocol and Amendments thereto.

The branch associated with the servicing of refrigeration equipment is set a goal – to switch to ODS recycling that permits to waive the necessity of refrigerants' importation, on the one hand, and improves training and improving the organization of repair of refrigeration equipment, on the other hand, finally, the aforesaid will facilitate the decrease of ODS consumption and utilization.

Administrative measures aimed at the restriction of import, reduction and subsequent complete prohibition on import of ODS-containing equipment are envisaged. In addition, the receipt of more complete and reliable information concerning ODS import and utilization will be achieved.

For the purpose of freezing the import volumes at the current level and securing the realization of the phase-out programme, a relevant quota system is instituted for ODS importers. A system of encouraging the import and utilization of technologies, not containing ODS, is being developed.

The process of implementation of the National projects is included in the Country Programme that envisages:

- Ratification of Copenhagen Amendment (1992), Montreal Amendment (1997) and Beijing Amendment (1999) to the Montreal Protocol;
- Development of the law base;
- ODS control;
- Institutional strengthening and increase of the organizational potential;
- Development of encouragement system and restrictions – securing the current control;
- Licensing of technicians;
- Training of teachers and technicians of refrigerating and conditioning sectors;
- Programme of ODS recovery and recycling;
- Programme of awareness raising and stimulation of ODS consumers, arrangement of training workshops;
- Phase-out of methyl bromide use in the agriculture and transfer to alternative types;
- Phase-out of halons use and transfer to alternative types;
- Switch to alternative types and phase-out of MDI utilization;

Table 10.
List of projects financed by GEF

№	Projects name	Cost, US dollars	
		Total cost	Including requested from GEF
1	«Development of the Country Programme» of Turkmenistan	16 000	16 000
2	«Institutional strengthening for the Montreal Protocol implementation in Turkmenistan»	138 493	115 693
3	«Project on refrigerants' recovery and recycling»	139 772	139 772
4	«Training programme in advanced technologies in refrigeration sector and training programme for customs officers»	143 755	143 755
	Grand total		415 220

Table 10a

Project financed by Multilateral Fund

№	Projects name	Cost, US dollars	
		Total cost	Including requested from GEF
1	«Institutional strengthening in Turkmenistan – Phase 1»	115 693	115 693
	Grand total		115 693

Table 10b

List of activities on assistance to Turkmenistan under the Regional Ozone Network for Europe and Central Asia, financed by the Multilateral Fund

№	Projects name	Cost, US dollars	
		Total cost	Including requested from GEF
1	Carrying out of the Regional Ozone Network for Europe and Central Asia	16 000	16 000
2	Actions under the Regional ECA Network "Public awareness raising"	3 700	3 700
3	Actions under the Regional ECA Network "Updating of the Country's Programme"	12 000	12 000
	Grand total		31 700

Turkmenistan Government supposes that by 2010 the ODS usage listed in Appendixes A and B of the Montreal Protocol will be ceased. It will be attained by dint of organization of a close cooperation between Governmental structures and enterprises through the practical realization of controlling measures as per plan of actions and projects proposed. Phase-out of HCFC utilization, methyl bromide and halons will correspond to terms fixed by the Montreal Protocol and its Amendments for countries acting under the Article 5(1).

1. INTRODUCTION

1.1. Goal

After entering the international community, Turkmenistan as an independent and neutral state has become concerned about problems associated with the ozone depletion of the planet.

The ODS consumption in Turkmenistan is lower the norms, fixed for developing countries. Nevertheless, the Government comprehends the significance of this global problem and direct influence of the ozone layer change on the ecosystem, therefore it considers necessary to undertake required actions and to take active part in the solution of the problem of decrease and subsequent reduction of consumption of ozone-depleting substances.

The Country Programme has been developed with the view of securing Turkmenistan's implementation of obligations ensuing from the Vienna Convention on ozone layer protection and Montreal Protocol on ozone-depleting substances, as well as in accordance with requirements of the Global Ecological Fund and the Multilateral fund as concerns rendering technical aid and financial assistance.

The Vienna Convention on ozone layer protection and Montreal Protocol on ozone-depleting substances were signed and ratified by Turkmenistan on November 18, 1993, and London Amendment to the Montreal Protocol was signed and ratified on March 15, 1994.

Primarily, Turkmenistan was classified as the Country acting under Article 2 of the Montreal Protocol on controlled substances.

In November 2004 at the 16th Meeting of Parties of the Montreal Protocol in Prague, on demand of the government by Decision XVI/39 Turkmenistan was classified as the Party acting under the point 1 Article 5 of the Montreal Protocol.

The Country Programme was drawn up in accordance with rules of the Executive Committee of the Multilateral Fund for submitting programmes and proposals under projects. The Programme has been elaborated on basis of the analysis of available information concerning consumption of ozone-depleting substances in different branches of the country's economics. Information gathering was carried out by the National Ozone Unit under the Ministry of Nature Protection of Turkmenistan according to methodical recommendations of the Executive Committee of the Montreal Protocol.

The Programme reflects organizational and political actions of Turkmenistan Government is to implement under liabilities assumed for the process of eliminating ODS consumption and banning of ODS production of in the country.

The Country Programme includes projects aimed at rendering assistance to Turkmenistan and to concrete enterprises for the replacement, destruction and economic use of ozone-depleting substances. The execution of relevant applications for their financing is planned for their practical realization.

The Country Programme is the main document for the monitoring of consumption, recycling, and destruction of ozone-depleting substances, and determines the system of monitoring of actions for the projects realizations.

1.2. Status

Turkmenistan Government anticipates that UNEP will render assistance in search of financing mechanisms for the implementation of proposed actions with the international support.

The Ministry of Nature Protection of Turkmenistan is the main governmental structure involved for the implementation of works for ODS replacement.

Pursuant to Turkmenistan Constitution adopted on May 18, 1992 (article 78), the Cabinet of Ministers is in charge of the governmental management of the economic and social development and securing the rational nature management and natural resources protection. Simultaneously, the Cabinet of Ministers governs the activity of the governmental institutions, which competence includes different issues associated with the environmental protection and the population's health protection, preservation of flora and fauna, natural resources, etc.

In addition, by the Resolution of the President of Turkmenistan under N 4091 dated March 1, 1999, a special State Commission for securing the implementation of Turkmenistan's obligations, ensuing from UN Conventions and Environmental Programmes was founded.

The State Commission is organized in different groups of Nature Protection Conventions. They include a working group of Vienna Convention and MP. The head of the group is the Chairman of the Central State Inspection of "Turkmenstandartlary" B.H. Hasanov

Commission's resolutions dealing with matters of its competence are obligatory for the implementation by all Ministries and Departments of Turkmenistan.

1.3. Assistance received

Turkmenistan implemented the following projects with financial assistance of GEF:

- Project: «Development of the Country Programme of Turkmenistan» at the amount of 16 000 US dollars;
- Project "Institutional strengthening for the Montreal Protocol implementation in Turkmenistan" at the amount of 138 493 US dollars;
- «Project on refrigerants' recovery and recycling» at the amount of 139 772 US dollars;
- Project "Training programme in advanced technologies in refrigeration sector and training programme for customs officers" at the amount of 143 755 US dollars.

Within the framework of the Country Programme the project "Institutional strengthening for the Montreal Protocol implementation in Turkmenistan" was completed in 2005: the «Project on refrigerants' recovery and recycling» was finished in 2002; the project "Training programme in advanced technologies in refrigeration sector and training programme for customs officers" was completed in 2005.

As it has been mentioned above, at the 16th Montreal protocol Parties Meeting in Prague, on demand of Turkmenistan Government, by the Resolution XVI/39 Turkmenistan was reclassified as a Party, acting under the point 1 of Article 5 of the Montreal Protocol.

After 2004 reclassification, Turkmenistan proceeded to the elaboration of a new Country Programme.

After asking for MF financial support, the implementation of the following projects has commenced in Turkmenistan:

- project «Institutional strengthening in Turkmenistan – Phase 1» at the total amount of 115 693 US dollars;

Under the Regional ECA Network Turkmenistan had received the following assistance:

- for creation of short educational television film on problems of the ozone layer protection, project "Public awareness raising" at the amount of 3 700 US dollars;
- due to Turkmenistan reclassification as the Party, acting under point 1 of the Article 5 of the Montreal Protocol for «Updating of the Country Programme» at the amount of 12 000 US dollars.

2. CURRENT SITUATION

2.1. Current ODS consumption

ODS consumption in Turkmenistan was defined on basis of registration data obtained from the State Customs Service of Turkmenistan, through contacts with main actual and potential consumers, as well as from territorial environmental protection bodies.

In 2005, the volume of trade and consumption of all ODS (see Table 11) in Turkmenistan was 86 196 MT taking into account ozone-depleting potential (ODP) –27 698 tons. From the total ODS amount, substances from Appendix A account for 64,79% (only CFC - 12), substances from Appendix C account for 13,55% (HCFC - 22) and substances from Appendix E account for 21,68% (Methyl bromide).

Table 11.
Volume of ODS trade and consumption in 2005, with breakdown according to substances and sources

Substance	Import 2005	Consumption, metric tons 2005	ODP	Consumption in 2005 taking into account ODP, tons	% 2005
Appendix A – Group I					
CFC-11	0,00	0,00	1,0	0,00	
CFC-12	17 938	17 938	1,0	17 938	
Total under Appendix A – Group I	17 938	17 938		17 938	64,76
Appendix B - Group II					
CTC (carbon tetrachloride)	0,00	0,00	1,1	0,00	
Total under Appendix B - Group II	0,00	0,00		00,0	
Total under Appendixes A and B	17 938	17 938		17 938	64,76
Appendix C - Group I					
HCFC-22	68 248	68 248	0,055	3 754	
Total under Appendix C	68 248	68 248		3 754	13,55
Appendix E					
Methyl bromide	10,01	10,01	0,6	6 006	
Total under Appendix E	10,01	10,01		6 006	21,68
Gross under all Appendixes	86 196	86 196		27 698	100

To receive data about current ODS consumption, an inquiry of main ODS consumers and importers was carried, and information from the State Customs Service of Turkmenistan was received. The analysis of data obtained has shown that Turkmenistan didn't produce and doesn't produce any ODS as well as equipment and goods regulated by the Montreal Protocol, but it imports them both per se and in articles.

Table 11.1 shows changes in ODS consumption. Decrease of consumption from 1995 till 2005. The table shows that since 1994 the country has completely ceased the utilization of aerosols using CFC-11.

Table 11.1.
Changes in ODS consumption, metric tons

Substance	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Appendix A – Group I											
CFC-11	0	0	0	0	0	0	0	0	0	0	0
CFC-12	56,0	29,6	26,4	25,3	18,6	21 015	57 718	10 492	43 390	58 412	17 938
Total under Appendix A	56,0	26,6	26,4	25,3	18,6	21 015	57 718	10 492	43 390	58 412	17 938
Appendix B - Group II											
CTC (carbon tetrachloride)	0,2	0	0	4,0	0	0	0	0	0	0	0
Total under Appendix B	0,2	0	0	0	0	0	0	0	0	0	0
Appendix C - Group I											
HCFC-22	8,7	27,2	0,8	1,2	21,1	46 448	80 721	7 091	18 236	14 906	68 248
Appendix E											
Methyl bromide	0	0	0	23,8	0	0	0	0	32,0	0	10,01
GROSS	64,9	53,8	27,2	54,3	39,7	67 463	138 439	17 583	93 626	73 318	96 286

2.1.2. Realization of the Country Programme on phase-out of ozone-depleting substances

It is supposed that the required consumption will be achieved by dint of realization of the Country Programme, in particular:

- Training of personnel servicing the refrigerating equipment sector and conditioners with rules and techniques of

CFC-12 replacement by other refrigerants will allow reducing ODS losses during the work;

- Programme of recovery and recycling will allow essential lowering of the required import;
- Disposal of obsolete refrigerating equipment on the railway (only 4 refrigerated vans of 499 available are in good repair) will allow ceasing CFC-12 import by 2010 as per the requirements of the Montreal Protocol.
- Replacement of methyl bromide by other alternative substances will allow reducing the volume of its consumption on demand of the Montreal Protocol.

2.1.3. ODS consumption forecast

Social and economic reforms being carried out in Turkmenistan are aimed at the betterment of the population's quality of life and attainment of higher social and economic level of the country's development.

Further private sector development in the field of trade and catering, and extension of the cash-and-carry market network are of great importance for the implementation of the Montreal Protocol.

Prospects of the economic development of Turkmenistan make it possible to state with higher certainty that industrial, trade and household sectors will be main probable consumers of ODS and their substitutes.

In connection with the planned growth of the nation's welfare, purchases of domestic and industrial refrigerating equipment will obviously increase, along with all types of air conditioning devices including automobile conditioners that use ozone-harmless substances.

During the years of independence, volumes of civil and industrial construction applying central air conditioning systems based on the use of ozone-harmless substances have considerably grown.

When predicting ODS consumption, it has been revealed that one should solve problems associated with the consumption and replacement of:

- *Halons;*
- *Methyl bromide (MB)*
- *Metered- dose inhalers (MDI)*

2.2. Industry structure

2.2.1. ODS import

Private entrepreneurs are main structures that import ODS on the territory of Turkmenistan. According to data of the State Customs Service of Turkmenistan actually all ODS listed in Appendixes A, B, C, E of the Montreal Protocol are imported from UAE, China, Turkey and Iran.

2.2.2. Consumers

Main ODS consumers in Turkmenistan are governmental and private enterprises (see Table 12). Repair and maintaining of refrigerating equipment are carried out by workshops of public and private sectors.

Taking into account that in accordance with Turkmenistan Law "On Licensing of some types of activity" (1998) no licensing of works associated with the repair and maintaining of refrigeration plants is envisaged, it is extremely difficult to keep accurate records of technicians in operation.

The largest repair organizations in the public sector are as follows:

- Public enterprise "Turkmensovdahyzmat";
- State National Agency "Turkmenhovayollary";
- Home Equipment Repair Production Association "Rembyttehnika";
- Ministry of Railway Transport of Turkmenistan;
- Ministry of Power Engineering and Industry of Turkmenistan;
- Directorate of "Turkmendenizderyayollary";
- Food Industry Association of Turkmenistan

The aforementioned basic ODS consumers deal with the repair of their own refrigerating plants in Turkmenistan.

Table 12.
List of main ODS consumers in Turkmenistan

Name of basic consumers	ODS	Consumption, metric tons	Consumption taking into account ODP, tons	%
Public enterprise "Turkmensovdahyzmat"	CFC-12 HCFC-22	380,2 0,00	380,2 0,00	2,12
State National Agency "Turkmenhovayollary"	CFC -12 HCFC -22	140,0 840,0	140,0 46,2	0,78

Home Equipment Repair Production Association "Rembyttehnika"	CFC -12 HCFC -22	244,8 0,00	244,8 0,00	1,36
Ministry of Railway Transport of Turkmenistan	CFC -12 HCFC -22	1,239 0,00	1,239 0,00	6,90
Ministry of Power Engineering and Industry of Turkmenistan	CFC -12 HCFC У-22	184,2 0,00	184,2 0,00	1,03
Directorate of "Turkmendenizderyayollary"	CFC -12 HCFC -22	1077,0 240,0	1077,0 13,2	6,00
Food Industry Association of Turkmenistan	CFC -12 HCFC -22	286,04 167,00	286,04 9,19	1,59
All other	CFC -12 HCFC -22	14,387 67,001	14,386 3,685	80,19
Total (in metric tons)	CFC -12 HCFC -22	17 938 68,248	17 938 3 754	100

2.2.2.1. Refrigerating equipment

In 1999, 2000 and 2001 the number of household refrigerators amounted to 11 708 pieces. In addition, some amount of household refrigerators not taken into account by statistics has been found in administrative buildings and premises, as well as in offices of different enterprises. The park of refrigerators manufactured till 1991 were actually completely produced on the territory of the former USSR, where only CFC-12 was mainly used. The import geography has extended lately. Key suppliers were:

South Korea; USA; Kuwait; Turkey, U.A.E.; Ukraine; Czech Republic; Iran; Ireland.

According to data of enterprises servicing household refrigerators, all household refrigerators that have been newly supplied in recent years use HCFC-134a as a refrigerant. The domestic manufacture of household refrigerators isn't available in the country and isn't envisaged by long-term plans of the economic development.

Trade-commercial refrigerators

Within recent years, in the sector of the trade-commercial refrigerators a tendency of their growth has been observed.

In 1999, 2000 and 2001 the number of refrigerators found amounted to 6317 thousand pieces.

According to the technological normative documentation, the averaged norm of the refrigerant consumption amounts to 2 kg per one repair. Minor and mid-life repairs are carried out at the refrigerant consumption rate 1,2 kg.

The bulk of trade-commercial refrigerators produced before 1991 used CFC-12. It is supposed that newly mounted equipment will be more ozone-harmless. In addition, equipment newly supplied to the country uses HCFC-22 or HCFC-134a as a refrigerant. The import of trade-commercial refrigerators to the country is carried out mostly from the same countries as the domestic refrigerators. They include U.A.E.; Iran; Turkey; USA.

No trade-commercial refrigerators are produced in the country.

Refrigerating plants used in transport

At present there are 499 refrigerated railcars in the country and only 4 of them are in good repair. Thereat this number has remained unchanged for a many-year period. In connection with the reduction of the traffic volume the railcars fleet mainly stands idle. According to data of the Ministry of Railway Transport of Turkmenistan the volume of CFC-12 used for filling at the moment is being reduced. 7,48 tons of CFC-12 have been used from 1995 to 1999, and just 1,239 tons were used in 2005. No other refrigerants are used in refrigerated railcars.

No production of refrigerated railcars is available in the country.

In prospect, some increase in the traffic volume with refrigerated railcars is planned for the nearest decade, and the aforesaid may demand the renovation of equipment available. According to experts' assessments, new equipment uses CFC-134a.

2.2.2.2. Conditioning

On stationary conditioning systems mounted in administrative buildings, museums, and libraries CFC-134 is used. The introduction of new systems using CFC-12 isn't planned. It is supposed that in the future newly introduced systems will use HCFC-22.

In 1999, 2000 and 2001 the amount of old domestic air-conditioners was 1100 thousand pieces. In old domestic air-conditioners CFC-12 is mainly used as a refrigerant.

In 1999, 2000 and 2001 the amount of domestic air-conditioners was 8022 thousand pieces.

All domestic air-conditioners mainly use HCFC-22 and CFC-134a as a refrigerant.

Air conditioning in transport is applied in insignificant volumes.

No home production of stationary and domestic air-conditioners is available in the country.

2.2.2.3. Foam agent usage sector

No foam agent technology and the foam agent production itself with CFC usage are available.

2.2.2.4. Dissolvent

In the country dissolvent is used in extremely insignificant amounts and only for laboratory purposes. According to data of the State Concern "Turkmengas", throughout the period spanning 1995-2006, 12.51 kg of CTC (carbon tetrachloride) were used for the laboratory purposes, namely, for the natural gas treatment.

At the same time, in 1998 Turkmenbashi Oil Refinery purchased carbon tetrachloride amounting to 4000 kg under a contract. From them:

- 2000 kg were used as a catalyst inhibitor within 1998-2000 period;
- CTC amount as an additive is quite small and is about 2 kg per day;
- in the central laboratory CTC is used in volumes 96-100 g per day.

2.2.2.5. Halons

Nowadays, according to data of State National Agency "Turkmenhovayollary" at the warehouse of the aircraft maintenance depot of "Turkmenistan" airline 140 kg of 114B2 freon is kept that were gathered from remains of on-board fire extinguishers, which were written-off as exhaust resources. They were produced in CIS countries and are not exploited at present. Foam and fire extinguishers which include ODS (halons) are applied in "Turkmenhovayollary" structure in aircrafts manufactured by the Boeing firm. On-board fire extinguishers in "Boeings" are filled outside Turkmenistan. For the foreseeable future the establishment of the production for the foam agent output and treatment isn't planned. When fighting against fires in oil and gas boreholes, one uses fire fighting methods excluding ODS usage, it mainly presents the method of plug fitting and backpressure applying.

Earlier, main forms of halons consumption were their usage in automatic fire-extinguishing systems and in portable fire extinguishers. All fire-extinguishing systems have been dismantled lately. Fire extinguishers' halons refill isn't carried out on the territory of Turkmenistan.

2.2.2.6. Agriculture

In 1998, for agricultural production requirements 1 800 kg of methyl bromide were purchased by the Food Industry Association of Turkmenistan, in the same year IE "Ussat" purchased 22 000 kg of methyl bromide.

In 1998, 5 690 kg of methyl bromide were used as grain-storing premises' fumigant and for the presowing treatment of legumes and cereal crops, as well as for the soil treatment against insects in greenhouses.

In 2003, "Turkmengallaonumleri" Association bought 32 000 kg of methyl bromide for treating store premises and for the presowing treatment of soils.

The lack of information concerning methyl bromide up to 2005 is explained by a frequent change of managers of consuming organizations, what caused the receipt of evidently inadequate information concerning this matter.

In 2005, methyl bromide consumption was 10,01 metric tons (21,68%). Whereas the fumigant consumption is inevitable, variants of methyl bromide's replacement by other alternative substances, which application isn't regulated by the Montreal Protocol, will be considered in the future.

2.3. Organizational-and-institutional structure

On the whole, state environmental protection management in Turkmenistan is imposed on the Ministry of Nature Protection of Turkmenistan. Some nature protection functions are fulfilled by certain branch Ministries and Departments.

The Ministry of Nature Protection of Turkmenistan and the National Ozone Unit are entrusted with functions of the national authority in charge of the implementation of the Vienna Convention and Montreal Protocol.

Pursuant to the Resolution of the President of Turkmenistan under N 4091 dated March 1, 1999, a special State Commission for securing the implementation of Turkmenistan's obligations, ensuing from UN Conventions and Environmental Programmes was founded, and ODS group functions in its structure. If necessary, public and private sector representatives are involved to work in the group.

The National Ozone Unit is under the Ministry of Nature Protection of Turkmenistan; its activity is concentrated on the data gathering, project management, preparation of materials for the Inter-departmental commission, annual reports to the Ozone Secretariat, executing institutions and Multilateral Fund.

Local technical advisers will be involved for the implementation of works in ODS replacement. The part and the extent of responsibility of each concrete executor will be specified by the ozone coordinator.

A certain legislative base relating to ozone layer preservation issues has been formed in Turkmenistan. In particular, the Law "On Nature Protection" (1991). The Article 22 of this law regulates issues of the earth's ozone layer

protection. The Law binds to take necessary measures for phase-out and complete ceasing, planning the production and utilization of chemical substances, depleting the ozone layer, in the national economy and in the everyday life.

The Law "On Atmosphere Air Protection" passed in 1996 is a lawful regulatory instrument associated with measures aimed at preventing harmful impacts on the ozone layer. The law envisages measures that bind legal and physical entities to keep ODS records, to foresee technical solutions ensuring principles of ODS regulation. In the area of regulation, the role of the ecological expertise is enhanced when considering projects developed for the construction of objects in different spheres of economy. This provision is regulated by Turkmenistan law "On State Ecological Expertise" (1995). Thus, just at the stage of the projects' agreement the possibility of ODS utilization as refrigerants and dissolvent is excluded.

The Ministry of Nature Protection of Turkmenistan is the main agency determining strategic trends and supervision over the practical realization of the National Plan of Actions. Main controlling subdivisions for the implementation of the Plan's provisions are the Division of Environment protection and Scientific Information Center of Ecological Monitoring of the aforementioned Ministry. The Minister of Nature Protection secures working contacts with the Cabinet of Ministers and other Ministries and departments concerned.

The betterment of the Country Programme that along with general matters includes issues of work with the public and retraining of specialists will allow a considerable increase of efficiency as regards taking concrete decisions related to the matters of ODS regulation.

2.4. Liabilities of Governmental Authorities and industrial enterprises with respect to the implementation of the Montreal Protocol terms

The work at replacement of ozone-depleting substances was begun in Turkmenistan before its joining to the Vienna Convention on ozone layer protection and the Montreal Protocol on ozone-depleting substances. Nowadays, London Amendments to the Montreal Protocol have been ratified and the preparatory work for the ratification of Copenhagen and Beijing Amendments to the Montreal Protocol is under development.

At present, one should expedite and complete the work on the improvement of a complex of measures regarding the legislative and normative-juridical aspects of management of the controlled substances' consumption and their substitutes as further steps aimed at the ODS usage phase-out and encouragement of introduction and utilization of their substitutes.

In view of the aforesaid, the realization of a series of measures meeting VC and MP requirements is necessary, in particular:

- to secure a control over the process of ODS phase-out, the elaboration of the restrictive policy in the export/import field is required, as well as the introduction of a system of bans for the export of ODS-containing equipment;
- improvement of the licensing system;
- the monitoring of the process of ODS phase-out presupposes an inevitable improvement of the ecological passport system of enterprises, having a negative impact on the environment;
- the introduction of a system of incentive measures is required in combination with the public policy actions directed at the encouragement of utilization of ODS substitutes and ODS recycling;
- taking into account that facts of illegal ODS import from other sources are observed in some countries, the enhancement and toughening of the legal and normative regulation are required;
- rising the level of public awareness as concerns issues of the ozone layer protection by dint of involvement of mass media, improvement of educational programmes, etc.

The aforementioned Turkmenistan Laws "On Nature Protection" and "On Atmosphere Air Protection" envisage the priority of international law norms over Turkmenistan legislation norms.

After approving the Country Programme on phase-out of ozone-depleting substances, the National strategy and Plan of actions will become valid and their implementation will be obligatory for participants involved.

All main enterprises that use and maintain ODS-containing equipment show interest in the conversion of industrial cycles. This tendency is foreseen to be developed both through the realization of investment projects and the Government's aid with the participation of the world community and local investors.

3. REALIZATION OF THE REPLACEMENT PROGRAMME

3.1. Strategic statement of the Government

Turkmenistan Government (hereinafter Government) is anxious of the state of the Earth's ozone layer and is about to take appropriate measures for the replacement of ozone-depleting substances and technologies by ozone-harmless and ecologically innocuous substances. Turkmenistan pledges itself to ratify Amendments to the Montreal Protocol.

As the Montreal Protocol Party, Turkmenistan Government intends to comply with necessary requirements and the ODS phase-out schedule. The economic situation permits to hope that within the next 10 years all provisions of the Country Programme will be realized. Thereby, Turkmenistan will completely fulfill its obligations ensuing from the Vienna Convention and the Montreal Protocol. To this effect, the Government anticipates to be rendered a technical and financial assistance from the part of the Multilateral Fund and other international organizations supporting these goals.

The Government's strategic line includes the following:

- to reduce the consumption of ODS from Appendix A – group I of MP by 50% by 01.01.2005; by 85% by 01.01.2007 and to cease completely by 01.01.2010;
- to reduce the consumption of ODS from Appendix A – group II of MP by 50% by 01.01.2005 and to cease completely by 01.01.2010;
- to reduce the consumption of ODS from Appendix B – group II of MP by 85% by 01.01.2005 and to cease completely by 01.01.2010;
- to observe the schedule of ODS replacement from Appendix C of MP (freezing the level by 01.01.2016 and complete cessation by 01.01.2040;
- to observe the schedule of ODS replacement from Appendix E of MP (freezing by 01.01.2002, reduction by 20% by 01.01.2005 and complete cessation by 01.01.2015);
- to expedite the ODS replacement at the earliest convenience relative to terms envisaged by international agreements;
- with the help of Multilateral Fund and other international organizations to develop and introduce a proper control system in order to ensure the process of ODS phase-out;
- to render all-round support to enterprises, institutions, organizations, companies and private persons that develop and introduce ozone-harmless technologies;
- to work out and introduce the system of ODS import/export monitoring;
- to secure the replacement of ozone-depleting substances by ozone-harmless substances, to be realized with the minimum risk for manufacturers and consumers;
- to improve the legislative and normative-juridical base for intensifying the control over ODS consumption;
- to secure the publicity of the progress of works in ODS replacement and the public's broad participation at every stage of implementation of the Country programme.

3.2. Plan of actions

3.2.1. Government's actions

The Government's Plan of actions for the realization of the proposed strategy of ODS restriction is based on the Government's Strategy described in section 3.1. of this Country programme. The Plan of actions that includes administrative measures and is aimed at the achievement of ODS phase-out is given in Table 13.

Table 13.
Turkmenistan Government's Plan of Actions

Action	1998- 2001	2002 -2005	2006 - 2010
1. Strategy for further ODS phase-out, including the necessary ODS monitoring and control	Improvement of the monitoring of the plan of actions, securing a reliable control over ODS utilization and emission, involvement and public awareness.	Continuation. Monitoring of the Country Programme implementation, plan of actions and projects	Continuation.
2. Development of the law base and subordinate legislation aimed at regulating ODS control system.	Improvement of the State Expertise system. Development of licensing systems for import. Fixing restrictions and bans for ODS-using equipment.	Continuation	Continuation
3. Working out an encouragement and restriction system – securing the current control.	Securing a regular control over and assessment of the actions' efficiency on basis of inter-branch agreements between Ministry of Nature Protection (MONP), Ministry of Power Engineering and Industry, State Customs Service of Turkmenistan and "Turkmenstandartlary". Progress in ODS phase-out as per requirements of the Montreal Protocol.	Continuation	Continuation
4. Licensing and quota system, ODS handling.	Development of the licensing system with the participation	Continuation	Final licensing embrace of all ODS

Action	1998- 2001	2002 -2005	2006 - 2010
	of the local authorities.		users.
5. Measures for supporting industry branches, especially the selling sphere.	Determining of priority directions for the utilization of ODS-free technologies. Definition of the recycling programme for servicing of refrigerating equipment.	Demonstration of recycling in the industrial and domestic sectors, expansion of the sphere of activity in this direction.	Continuation
6. Development of publicity, arrangement of training seminars.	Broad informing in accordance with the strategy of ODS phase-out. Mass media attraction for discussing the new policy, arrangement of training seminars with the employees of the State Customs Service of Turkmenistan and "Turkmenstandartlary"	Continuation of the indicated directions.	Continuation
7. Recovery and recycling of the controlled substances in the domestic and industrial sectors.	Personnel training in working with controlled substances recycling facilities. Re-equipping of 6 largest workshops for conditioning and refrigerating devices repair and maintenance .	Expansion of the network of workshops with increasing their number.	Continuation of works in this direction.
8. Rendering assistance to the monitoring of the ozone layer state	Assistance in search of means required of financing	Continuation. Assistance in the execution of projects and their implementation	Continuation
9. Reduction of methyl bromide usage			*Development of measures for the further utilization*
10. Reduction of halons usage			*Development of measures for the further utilization*
11. Reduction of MDI usage			*Development of measures for the further utilization*

3.2.2. Projects

To secure the implementation of the Plan of actions, the Government supports the implementation of the following projects (see Table 14).

- Project "Institutional strengthening for the Montreal Protocol implementation in Turkmenistan" (GEF);
- Project «Development of the Country Programme of Turkmenistan »;
- Project «On refrigerants' recovery and recycling»;
- Project "Training programme in advanced technologies in refrigeration sector and training programme for customs officers";
- Project «Institutional strengthening in Turkmenistan – Phase 1» (MF);
- Conducting of the Regional ECA Network meeting;
- Actions under the Regional ECA Network " Public awareness rising";
- Measures under the Regional ECA Network «Updating of the Country's Programme»

Table 14.
Information concerning the projects described above on GEF

№	Branch of application	Project name	Date of the project commencement	Amount of substances being phased-out from usage considering ODP, t	Project cost, US dollars
1	All	"Institutional strengthening for the Montreal Protocol implementation in Turkmenistan"	1999	No	115 693
2	All	«Development of Turkmenistan Country Programme»	1999	No	16 000
3	In the sector of refrigerating equipment and conditioning	«On refrigerants' recovery and recycling»	1999	7.53	139 772
4	In the sector of refrigerating equipment and conditioning	"Training programme in advanced technologies in refrigeration sector and training programme for customs officers"	2001	6,53	143 755

Table 14a.
Information concerning the projects described above on MF

№	Branch of application	Project name	Date of the project commencement	Amount of substances being phased-out from usage considering ODP, t	Project cost, US dollars
1	All	"Institutional strengthening in Turkmenistan- Phase I"	2005	No	115 693

Table 14b.

List of activities on assistance to Turkmenistan under the Regional Ozone Network for Europe and Central Asia, financed by the Multilateral Fund

№	Branch of application	Project name	Date of the project commencement	Amount of substances being phased-out from usage considering ODP, t	Project cost, US dollars
1	All	Carrying out of the Regional Ozone Network for Europe and Central Asia	2007	No	16 000
2	All	Actions under the Regional ECA Network "Public awareness raising"	2005	No	3 700
3	All	Actions under the Regional ECA Network "Updating of the Country's Programme"	2006	No	12 000

3.3. Roles of different structure in the realization of the strategic line

Turkmenistan Government envisages carrying out a systematic control over the observance of requirements of the Montreal Protocol as well as rendering support possible to enterprises in search of necessary foreign relations and sources of financing.

The organization in charge of the implementation of the Montreal Protocol is the Ministry of Nature Protection of Turkmenistan in cooperation with the State Commission for securing the implementation of Turkmenistan's obligations, ensuing from UN Conventions and Environmental Programmes.

The Ministry of Power Engineering and Industry of Turkmenistan secures the issue of licenses and quotas for the import and export of ODS-containing and ODS-using products.

The State Commission for securing the implementation of Turkmenistan's obligations manages the process of ODS restriction, coordinates the implementation of the Country programme, the Plan of actions and projects, and evaluates the efficacy of the process of ODS restriction in whole.

The National Ozone Unit functions under the Ministry of Nature Protection of Turkmenistan and is an ozone standing working body. The Ozone Unit coordinates, monitors and assesses the efficiency of the outcomes of actions realized under the Government's Plan of actions, and ensures the gathering and processing of data regarding ODS consumption, usage, replacement and monitoring, the projects' management, preparation of materials for the Inter-departmental commission, reports to UNEP Ozone Secretariat and Multilateral Fund.

The State Customs Service of Turkmenistan is entrusted with the control of ODS import and export and products on their basis, as well as their stocktaking.

The Ministry of Nature Protection of Turkmenistan provides with the ecological expertise of the projects of construction, reconstruction, technical re-equipment, new machinery and technologies that use ODS or their substitutes.

3.6. Organization of monitoring

The Government will monitor the annual ODS consumption and control the efficacy of the Plan of actions, envisaged by the Country Programme and the progress of projects' realization. The Government will inform GEF and MF and Executive agencies (UNEP and UNDP) of the progress of the Country Programme and investments projects.

The monitoring of ODS consumption is based on data of the State Customs Service of Turkmenistan and Central State agency "Turkmenstandartlary" in charge of ensuring the laboratory control of the imported products. The Ministry of Power Engineering and Industry of Turkmenistan secures the control over the licensing system and assignment of quotas for ODS import and export.

The National Ozone Unit under the Ministry of Nature Protection of Turkmenistan will summarize all data and submit reports to UNEP Ozone Secretariat, GEF and MF.