EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-fifth Meeting
Montreal, 5-7 December 2001

Addendum

PROJECT PROPOSALS: TURKEY

This addendum is issued to add the following proposal in the refrigeration sector:

• Refrigeration ODS Phase out Sector Plan  
  World Bank
**PROJECT EVALUATION SHEET**
**TURKEY**

SECTOR: Refrigeration  
ODS use in sector (1999): 871 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

**Project Titles:**

(a) Refrigeration ODS Phase out Sector Plan

<table>
<thead>
<tr>
<th>Project Data</th>
<th>Refrigeration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise consumption (ODP tonnes)</td>
<td>871</td>
</tr>
<tr>
<td>Project impact (ODP tonnes)</td>
<td>871</td>
</tr>
<tr>
<td>Project duration (months)</td>
<td>60</td>
</tr>
<tr>
<td>Initial amount requested (US $)</td>
<td>3,500,000</td>
</tr>
<tr>
<td>Final project cost (US $):</td>
<td></td>
</tr>
<tr>
<td>Incremental capital cost (a)</td>
<td></td>
</tr>
<tr>
<td>Contingency cost (b)</td>
<td></td>
</tr>
<tr>
<td>Incremental operating cost (c)</td>
<td></td>
</tr>
<tr>
<td>Total project cost (a+b+c)</td>
<td>9,000,000</td>
</tr>
<tr>
<td>Local ownership (%)</td>
<td>100%</td>
</tr>
<tr>
<td>Export component (%)</td>
<td>0%</td>
</tr>
<tr>
<td>Amount requested (US $)</td>
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<tr>
<td>Cost effectiveness (US $/kg.)</td>
<td>10.33</td>
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<td>Counterpart funding confirmed?</td>
<td></td>
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<tr>
<td>National coordinating agency</td>
<td>Technology Development Foundation</td>
</tr>
<tr>
<td>Implementing agency</td>
<td>IBRD</td>
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</tbody>
</table>

**Secretariat's Recommendations**

| Amount recommended (US $) | |
| Project impact (ODP tonnes) | |
| Cost effectiveness (US $/kg) | |
| Implementing agency support cost (US $) | |
| Total cost to Multilateral Fund (US $) | |
PROJECT DESCRIPTION

Refrigeration ODS Phase out Sector Plan

INTRODUCTION

18. This document consists of the Secretariat’s comments on the draft Agreement for CFC Phase-out in the Refrigeration Sector in Turkey and the draft Annual Implementation Plan for 2002. It is submitted in response to Decision 34/62, in which the Executive Committee approved the sector plan in principle at a level of funding of about US $9 million. The draft agreement and the draft 2002 annual implementation programme are reproduced in full in Annexes I and II respectively to this document. The complete sector plan, as revised, is available on the web-site of the Secretariat, www.unmfs.org.

19. Under the draft agreement the World Bank is seeking approval at the 35th Meeting of a total of US $3.5 million plus US $350,000 support costs for the 2002 annual implementation programme.

20. The Secretariat undertook extensive consultations with the World Bank on the draft agreement and on implementation details as requested in Decision 34/62. Preparation of this document was withheld to provide the maximum opportunity to resolve outstanding issues. Consequently, the content of the agreement with regard to conditions for approval of funding, monitoring and reporting of performance, evaluation and other administrative matters, has been agreed upon. However, there remain substantive, unresolved issues concerning the actual phase-out to be achieved and discrepancies between the consumption data reported by the Government of Turkey and the data indicated in the sector plan and the agreement.

SECRETARIAT’S COMMENTS AND RECOMMENDATION

COMMENTS

The Agreement

21. The sector plan uses 1999 as the baseline year from which consumption will be reduced. The funding agreed in principle by the Executive Committee at its July meeting was based on consumption in 1999 which was the latest data available to the Secretariat at that time. Data reported to the Secretariat by the Government of Turkey on 11 October 2001 indicates that consumption in the refrigeration sector in Turkey in the year 2000 had already decreased below the control levels indicated in the agreement (and the sector plan) for the years 2001 and 2002.
CFC-12 consumption

22. With regard to CFC-12, consumption in 2000 was reported as 520 tonnes, compared to 736 tonnes in 1999. Under the agreement, the consumption control targets in 2001 and 2002 are 700 and 650 tonnes respectively. Consumption will not be reduced below the currently reported figure (520 tonnes) until 2003 when the control target falls to 334 tonnes. The World Bank advised that stockpiling from previous years was used in the sector in both 1999 and 2000, resulting in total use in the sector of 770 tonnes in 2000, even though reported consumption was limited to 520 tonnes. There is no indication of any future provision for stockpiling.

CFC-11 consumption

23. With regard to CFC-11, consumption in the refrigeration sector has been reported in the sector plan and in reports to the Secretariat as “small” in 1995 and 1996, and as zero from 1997 to 1999. To explain this, the sector plan indicates that all CFC-11 consumption in Turkey has been attributed to the foam sector even though some may have been consumed by refrigeration manufacturers. However the Secretariat’s analysis of CFC-11 consumption figures provided by Turkey indicates that up to the present time, the phase out from funded projects in the foam sector is some 200 tonnes in excess of the total national CFC-11 consumption in 2000. In addition in its 2002 business plan, UNIDO has indicated an intention to present foam projects in Turkey with a consumption of an additional 190 tonnes. This indicates a total planned Multilateral Fund commitment of some 390 tonnes in excess of the year 2000 CFC-11 consumption. Separately, it is unclear how the agreement can indicate refrigeration sector CFC-11 consumption targets of 65 and 36 tonnes respectively when the consumption formally reported by Turkey is already zero.

Support Costs

24. The Secretariat also discussed with the World Bank its proposals for 11.5 percent support costs. The Bank proposes to continue to monitor the project from the sector phase out date of 31 December 2005 until 2010. Support costs reflect inter-alia this additional proposed activity and are based on 10 percent for the first three years and 13 percent for the remaining period. Taking into account the supporting activities to be undertaken by the Government of Turkey, and that consumption reports under Article 7 of the Protocol must be provided annually by Turkey, including after complete phase out at the end of 2005, the Secretariat considers that there should be scope for the support costs provided to the World Bank to be substantially lower than the overall 11.5 percent requested.

2002 Annual Implementation Programme

25. The World Bank refers to the initial tranche as an annual implementation plan for 2001 and 2002, although it will not be funded before December 2001. The Bank is seeking approval at this meeting of US $3.5 million in funding for activities to be implemented in 2002.

26. Section 4.3 of the programme indicates that the Government of Turkey has decided to include in the first annual implementation programme financing for “any refrigeration company which might have moved ahead and might have converted their refrigeration part or their foam
part” in anticipation of the approved strategy. This is confirmed in the revised sector plan, according to which the Secretariat estimates that costs of up to about US $2.1 million could be for retroactive payments.

27. It is also noted that the US $3.5 million will result in the phase-out of only 86 tonnes of CFC-12 from the 1999 baseline and no phase out from the level of consumption reported to the Fund Secretariat for 2000.

28. Additional issues concerning the 2002 implementation programme include:

   (a) the absence of a specified limit on proposed import quotas to conform with the consumption control targets (Section 4.2);

   (b) a lack of specificity about the support activities proposed to be undertaken which will hinder assessment of satisfactory performance of the annual plan as included in the agreement (for example Sections 4.1, 4.4, 4.5, 4.7 and 4.8).

29. These issues were raised by the Secretariat but the World Bank declined to incorporate the necessary amendments in the 2002 annual implementation programme or to provide any more specific information in the programme. Specific actions are included in the revised sector plan in relation to contracts to be signed (Table 8.6, Key Implementation Milestones). As a minimum, the milestones for 2002 need to be reflected explicitly in the 2002 annual implementation programme.

RECOMMENDATION

30. The Executive Committee may wish to consider the draft Agreement for CFC Phase-out in the Refrigeration Sector in Turkey and the draft 2002 Annual Implementation Programme in the light of the above comments.
Annex I

- Draft Agreement for CFC Phase out in the Refrigeration Sector in Turkey
Draft

Agreement for CFC Phase Out in the Refrigeration Sector in Turkey

1. The Executive Committee approves in principle a total of US $9 million in funding for the phased reduction and complete phase out in the consumption of CFC-11, CFC-12 and CFC-115 used in the refrigeration sector in Turkey. This is the total funding that would be available to Turkey from the Multilateral Fund for the total elimination of CFC use in the refrigeration sector in Turkey. The agreed level of funding would be paid out in installments in the exact amount of US dollars specified in Paragraph 2, and on the basis of the understanding set out in this agreement.

2. By this agreement, Turkey commits that in exchange for the funding level specified below, it will eliminate its total CFC consumption in the manufacturing, installation and servicing of refrigeration and air conditioning equipment in accordance with the individual and aggregate consumption targets as indicated in the Table 1 below:

Table 1: Control Targets for CFC-11, CFC-12 and CFC-115 consumption in refrigeration sector (ODP MT)

<table>
<thead>
<tr>
<th></th>
<th>1999 Base-line</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum allowable CFC-12 consumption</td>
<td>736*</td>
<td>700</td>
<td>650</td>
<td>334</td>
<td>166</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>736</td>
</tr>
<tr>
<td>Maximum allowable CFC-11 consumption in the refrigeration sector</td>
<td>126**</td>
<td>65</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>126</td>
</tr>
<tr>
<td>Maximum allowable CFC-115 consumption in the refrigeration sector</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Max ODP for the refrigeration sector</td>
<td>871</td>
<td>774</td>
<td>693</td>
<td>334</td>
<td>166</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>871</td>
</tr>
<tr>
<td>Total agreed funding US $ million</td>
<td>3.5</td>
<td>2.5</td>
<td>2.0</td>
<td>0.5</td>
<td>0.3</td>
<td>0.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9.0</td>
</tr>
<tr>
<td>Agency support costs US $ million</td>
<td>0.350</td>
<td>0.250</td>
<td>0.200</td>
<td>0.065</td>
<td>0.039</td>
<td>0.030</td>
<td>0.030</td>
<td>0.030</td>
<td>0.030</td>
<td>0.026</td>
<td>1.020</td>
</tr>
</tbody>
</table>

Notes
* The CFC-12 consumption does not take into account stocks carried over from previous years. The 2000 CFC-12 import was 520 tonnes plus an estimated 250 tons carried over from the previous year.
** The total import of CFC-11 in 1999 was 1049 ODP tonnes.
3. The Executive Committee also agrees in principle that the funds will be provided at the last meeting of the Executive Committee in a given year, in accordance with the above table for the exact amount listed in the table for that year and on the basis of an annual implementation plan for the following year, subject to the performance requirements contained in this agreement. On this basis, the payment indicated in year 2001 will be for activities to be undertaken the following year, 2002, and so on.

4. Payments noted in Table 1, other than the 2001 implementation program, will be released based on confirmation that: the agreed phase-out amounts targets noted in the Table 1 for the previous year have been achieved; it has been verified that the activities planned for the previous year were undertaken in accordance with the annual implementation plan, and CFC phase-out contracts had been signed amounting to at least 80% the MLF funding approved for the relevant annual programme. For example, payment in 2002 for the implementation of the 2003 work program will be conditional on satisfactory verification that Turkey had, as a minimum, met its consumption targets for 2001 and signed phase out contracts for 80% of the 2002 MLF grant amount (80% of US $2.5 million) as specified in Table 1 and as provided in detail in the 2002 implementation plan. Payment in 2003 for the 2004 implementation plan would be released based on confirmation that the 2002 consumption targets has been met, all 2002 implementation plan activities had been completed and contract amounting to at least 80% of the 2002 MLF grant had been signed: and so on for future years. In the event that contracts totaling 80% of the MLF funding available for a given year have not be signed, funding equivalent to the deficit would be held back and, considered for released by the Executive Committee when all additional contracts had been signed and the targets met.

5. The Government of Turkey agrees to ensure accurate monitoring of the phase out. The Government of Turkey will provide regular reports, as required by its obligations under the Montreal protocol and this Agreement. Consumption figures provided under this agreement will be consistent with Turkey’s reports to the Ozone Secretariat under Article 7 of the Montreal Protocol.

6. The Government of Turkey also agrees to allow independent verification audits as provided for in this agreement, and in addition, external evaluation as may be directed by the Executive Committee, to verify that annual CFC consumption levels correspond to those agreed in Table-1 and that implementation of the sector plan proceeds as scheduled and agreed in annual implementation programmes.

7. The Turkish refrigeration plan which support this Agreement, Turkish Country Programme and other related documentation may include estimates of specific funds that were thought to be needed for specific items. Notwithstanding this, the Executive Committee wishes to provide Turkey with maximum flexibility in using the agreed funds to meet the consumption limits agreed in the Table-1. The Executive Committee has the understanding that during implementation, as long as it is consistent with this Agreement, the funds provided to Turkey pursuant to this Agreement may be used in any manner that Turkey believes will achieve the smoothest possible CFC refrigeration sector phase out, consistent with operational procedures as agreed between Turkey and the World Bank in the refrigeration sector plan as revised and as indicated in the annual implementation programmes. In the Executive Committee’s
acknowledgement of the flexibility available to Turkey in achieving a complete CFC refrigeration sector phase out, it is noted that Turkey is committing to contribute the necessary level of resources for the implementation of the plan and for achieving the consumption limits in paragraph 2 of this agreement.

8. The Government of Turkey agrees that the funds being agreed in principle by the Executive Committee at its 35th Meeting for the complete phase out of CFC-11, CFC-12 and CFC-115 consumption in the refrigeration sector are the total funding that will be available to Turkey to enable its full compliance with the reduction and phase out as agreed with the Executive Committee of the Montreal Protocol, and that no additional Multilateral Fund resources will be forthcoming for any related activities in the refrigeration sector. It is also understood that aside from the agency fee referred to in Paragraph 9 below, the Government of Turkey, the Multilateral Fund, and its Implementing Agencies, and bilateral donors will neither request nor provide further Multilateral Fund related funding for the accomplishment to the total phase out of CFCs in the refrigeration sector.

9. The Government of Turkey agrees that if the Executive Committee meets its obligations under this Agreement, but Turkey does not meet the reduction requirements outlined in paragraph 2, and other requirements outlined in this document, the Implementing Agency and the Multilateral Fund will withhold funding for subsequent tranche of funding outlined in Paragraph 2 until such time as the required reduction has been met. It is clearly understood that the fulfillment of this agreement depends on the satisfactory performance of its obligations by both the Government of Turkey and the Executive Committee. In addition, Turkey understands that regarding all calendar year targets beginning with 2002, in paragraph 2 of this agreement, the Multilateral Fund will reduce the subsequent tranche and the therefore the total funding for CFC-11, CFC-12 and CFC-115 phase out in the refrigeration sector on the basis of [US $10,000] per ODP tonne of reduction not achieved in any year.

10. The World Bank has agreed to be the Implementing Agency for the implementation of this Sector Plan which will be completed in 2006. [It is also agreed that monitoring will continue until 2009 in order to ensure compliance during the period 2006 to 2009]. A fee of a total of [11.5] percent of the sector plan annual funding has been agreed in accordance with provisions of this Agreement [and distributed as shown in Table 1].

11. As the implementing agency, the World Bank would be responsible for the following:

(a) Ensuring performance and financial verification in accordance with specific World Bank procedures and requirements as specified in the Turkish refrigeration sector plan, as revised;

(b) Reporting on the implementation of the annual implementation programs to be included as part of each annual program starting with the submission for the 2003 annual implementation program prepared in 2002;

(c) Providing verification to the Executive Committee that the control targets listed in Table 1 and the associated activities have been met;
(d) Ensuring that technical reviews undertaken by the World Bank are undertaken by appropriate independent technical experts;

(e) Assisting Turkey in preparation of annual implementation programs, which will incorporate achievements in previous annual programs;

(f) Carrying out required supervision missions;

(g) Ensuring the presence of an operating mechanism to enable effective, transparent implementation of the program, and accurate data reporting;

(h) Verification for the Executive Committee that CFC consumption for the refrigeration sector has been completed based on the schedules listed in Table 1;

(i) Ensuring that disbursements are made to Turkey based on agreed performance targets in the project and provisions in this Agreement;

(j) Provide policy development assistance when required.

12. The funding components of this Decision shall not be modified on the basis of future Executive Committee decisions that may affect the funding of any other consumption sector projects or any other related activities in the country.
Annex II

- 2001 and 2002 Implementation Plan for the Turkish Refrigeration Sector Plan
2001 and 2002 Implementation Plan for the Turkish Refrigeration Sector Plan

1. **Introduction:**
As the refrigeration sector is to be approved in December 2001, the first Implementation Plan will cover the period from January 2001 and through December 31, 2002 instead of the initial planned year of only 2001. However, the CFC consumption target will be met for each of the two years as given in the Implementation Plan (see table below).

Taking into account the short time available to reduce the import to zero, a number of activities have to be initiated already in 2002 and 2003 in order to ensure the impact in 2004 and onward.

This first annual plan will consist of the following key components: a) review and strengthening of existing phase out policies and regulations; b) issue CFC import quotas for 2002 (quotas for 2001 were issued to importers consistent with the draft sector plan); c) sign contracts with all eligible SME commercial refrigeration companies as identified during the preparation of the sector plan; d) start the development of the recycling program; and e) start the re-training of the refrigeration industry.

2. **Time period covered:**
January 1, 2001 – December 31, 2002

3. **Performance indicators:**

3.1 **ODS consumption**
The maximum allowable CFC consumption in the refrigeration sector in 2001 and 2002 is given in the table below.

<table>
<thead>
<tr>
<th>ODS Substance</th>
<th>Consumption in refrigeration sector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
</tr>
<tr>
<td>CFC-12</td>
<td>736</td>
</tr>
<tr>
<td>CFC-114 and CFC-115</td>
<td>9</td>
</tr>
<tr>
<td>CFC-11 consumption</td>
<td>126</td>
</tr>
</tbody>
</table>

All figures in MT.

The release of the second tranche for the 2003 Implementation Plan to be approved at the last meeting in 2002 is contingent on the performance target for 2001 being met. Hence, the 2003 Implementation Plan to be submitted at the third meeting in 2002 will be accompanied by a 2001 consumption verification report.
3.2 Contracts signed:
In accordance with the agreement between Turkey and the Executive Committee of the Multilateral Fund, the second performance indicator is the value of contracts signed.

It is required that contracts amounting to 80% (US$ 2.8 million) of the available amount (US$ 3.5 million) are signed before the approval of the 2003 Implementation Plan.

The key components of the main activities in the 2001-2002 Implementation Plan are as follows:

4.1 Policies and Regulations.
In order to support the implementation of the sector plan, the policies and regulations in place will be reviewed and evaluated in the context of the sector plan. If necessary, implementations to amend existing policies, improve the enforcement the existing policies or initiate new policies will be taken.

4.2 Import quotas.
Quotas are issued to eligible importers on an annual basis. Each importer is entitled to a quota based on his historical imports and adjusted so the aggregate import is within the allowed annual consumption. While the 2001 quotas have been managed in accordance with the draft sector plan, the 2002 quotas will be issued during the first quarter of 2002 based on specific requests from the individual importers.

4.3 SME Commercial Refrigeration Equipment manufacturer.
A key activity in the 2001-2002 Implementation Plan is to finance the remaining refrigeration equipment manufacturers. As outlined in the project document, the procedure will be as follows:

- Development of an application form for SME refrigeration companies.
- Standard contract forms.
- Price quotations for standard equipment packages.
- Workshop for SME companies to introduce the sector plan, implementation modalities and the procedures to be followed.
- Applications from SMEs.
- Application review, verification and contacting process.

In accordance with the initial timetable outlines, the process will require around 6 months and preparatory work has already started. As the original timetable called for an earlier aggressive phase out, companies have been encouraged to move ahead. Taking into account the delay in the approval of the Turkish Refrigeration Sector Plan, it has been decided by the Government of Turkey to include financing of any refrigeration company which might have moved ahead and might have converted their foam part and/or refrigeration part. The 1998 survey included baseline information for the SME refrigeration companies.
4.4 **Recovery and recycling scheme.**
This activity consists of two phases. Phase I to be initiated in 2002 will primarily address the SMEs and the transportation and MAC sector. Phase II to be started in 2003 will cover all the refrigeration sector in general.

The contracts formed will be developed as outlined in the project document.

4.5 **Chiller replacement program.**
The chiller replacement program will be started in the second half of 2002 by inviting owners of chillers to register their chillers so that a database can be established. The information will assist the development of the more detailed Implementation Plan for the chiller replacement program, including selection criteria, standard contract form etc. The Implementation Plan will be presented at a workshop 4th quarter of 2002. The aim is to be able to sign the first chiller replacement contracts by end 2002.

4.6 **End user retrofitting program.**
Will only be started in 2003.

4.7 **Training activities.**
The training activities included in the first Implementation Plan are:

- Training for use of MAC CFC recycling machines.
- Training activities targeting mainly SME refrigeration companies.
- Workshops for the implementation of SME, recycling/recovery and chiller program.

4.8 **Technical assistance activities.**
The TA activities will include the preparation of documentation/manuals for MAC recycling/retrofit program.

In order to be ready for the activities related to end user retrofit and the chiller replacement program, guidelines for repair and retrofit in all sectors will be developed through this TA activity. It is expected that material developed by UNEP and experiences gained in the developed countries will be available to support the activity.

4.9 **Project Management Office**
The first activity will be to establish a project management office under TTGV and develop monitoring procedures and reporting.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Amount allocated* (US$)</th>
<th>Activity starting</th>
<th>Contracts signing completed</th>
<th>Full ODS impact of activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies and regulations</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quota allocated</td>
<td>0</td>
<td>Dec, 2001</td>
<td>Sept. 2002</td>
<td></td>
</tr>
<tr>
<td>SME program</td>
<td>2,750,000</td>
<td>Dec, 2001</td>
<td>July, 2002</td>
<td>20% in 2002, 40% in 2003, 40% in 2004</td>
</tr>
<tr>
<td>Recovery/recycling</td>
<td>550,000</td>
<td>April 2002</td>
<td>Dec 2003</td>
<td>2004</td>
</tr>
<tr>
<td>Chiller replacement</td>
<td>500,000</td>
<td>Jan, 2002</td>
<td>Sept 2002</td>
<td>Ongoing</td>
</tr>
<tr>
<td>End user</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training activities</td>
<td>100,000</td>
<td>Jan 2002</td>
<td>July 2002</td>
<td>NA</td>
</tr>
<tr>
<td>Technical assistance program/Project management office</td>
<td>100,000</td>
<td>Jan 2002</td>
<td>July 2002</td>
<td>NA</td>
</tr>
<tr>
<td>MLF funding</td>
<td>3,500,000</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>4,000,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The difference to be financed by Turkey.