

CONFORMED COPY

LOAN NUMBER 4495 TU

Loan Agreement

(Industrial Technology Project)

between

REPUBLIC OF TURKEY

and

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Dated August 2, 1999

LOAN NUMBER 4495 TU

LOAN AGREEMENT

AGREEMENT, dated August 2, 1999, between the REPUBLIC OF TURKEY (the Borrower) and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (the Bank).

WHEREAS (A) the Borrower, having satisfied itself as to the feasibility and priority of the project described in Schedule 2 to this Agreement (the Project), has requested the Bank to assist in the financing of the Project; and

(B) the Project will be carried out by Turk Patent Enstitusu (TPE) (the Turkish Patent Institute), Turkiye Bilimsel ve Teknik Arastirma Kurumu (TUBITAK) (the Scientific and Technical Research Organization of Turkey), through Ulusal Metroloji Enstitusu (TUBITAK/UME) (the National Metrology Institute) and Marmara Arastirma Merkezi (TUBITAK/MAM) (the Marmara Research Center), and Turkiye Teknoloji Gelistirme Vakfi (TTGV) (the Technology Development Foundation of Turkey) with the Borrower's assistance and, as part of such assistance, the Borrower will make the proceeds of the loan provided for in Article II of this Agreement (the Loan) available to the Project Agencies (defined hereafter);

WHEREAS the Bank has agreed, on the basis, inter alia, of the foregoing, to extend the Loan to the Borrower upon the terms and conditions set forth in this Agreement and in the agreements of even date herewith between the Bank and TPE, TUBITAK/ UME, TUBITAK/ MAM and TTGV (the Project Agreements);

NOW THEREFORE the parties hereto hereby agree as follows:

ARTICLE I

General Conditions; Definitions

Section 1.01. The "General Conditions Applicable to Loan and Guarantee Agreements for Single Currency Loans" of the Bank, dated May 30, 1995 (as amended through December 2, 1997) (the General Conditions) constitute an integral part of this Agreement.

Section 1.02. Unless the context otherwise requires, the several terms defined in the General Conditions and in the Preamble to this Agreement have the respective meanings therein set forth and the following additional terms have the following meanings:

(a) "Beneficiary" means any eligible recipient to which TTGV made or proposes to make a sub-finance (defined hereafter).

(b) "Eligible Categories" means: (i) in respect of the Special Account for Part A of the Project, Category (1) set forth in the table in Part A.1 of Schedule 1 to this Agreement; (ii) in respect of the Special Account for Part B of the Project, Category (2) set forth in the table in Part A.1 of Schedule 1 to this Agreement; (iii) in respect of the Special Account for Part C of the Project, Category (3) set forth in the table in Part A.1 of Schedule 1 to this Agreement; and (iv) in respect of the Special Account for Part D of the Project, Category (4) set forth in the table in Part A.1 of Schedule 1 to this Agreement;

(c) "Eligible Expenditures" means: (i) in respect of the Special Account for Part A of the Project, the expenditures for goods and services referred to in Section 2.02 of this Agreement and to be financed out of the proceeds of the Loan allocated from time to time to said Special Account's respective Eligible Category; (ii) in respect of the Special Account for Part B of the Project, the expenditures for goods and services referred to in Section 2.02 of this Agreement and to be financed out of the proceeds of the Loan allocated from time to time to said Special Account's respective Eligible Category; (iii) in respect of the Special Account for Part C of the Project, the expenditures for goods and services referred to in Section 2.02 of this Agreement and to be financed out of the proceeds of the Loan allocated from time to time to said Special Account's respective Eligible Category; and (iv) in respect of the Special Account for Part D of the Project, the expenditures for goods and services referred to in Section 2.02 of this Agreement and to be financed out of the proceeds of the Loan allocated from time to time to said Special Account's respective Eligible Category.

(d) "NAC" means the national accreditation council (TURKAK) to be established by the Borrower as an independent entity.

(e) "PIP" means the Project Implementation Plan for the carrying out of the Project referred to in paragraph 1 of Schedule 5 to this Agreement and in paragraph 1 of the Schedule to each Project Agreement, as the same may be amended from time to time with the agreement of the Bank.

(f) "Project Agency" means individually, TPE, TUBITAK/UME, TUBITAK/MAM or TTGV, and "Project Agencies" means, collectively, TPE, TUBITAK/ UME, TUBITAK/ MAM and TTGV.

(g) "Project Management Report" means each report prepared in accordance with Section 4.01 (a) of the Project Agreements (defined hereafter).

(h) "Project Preparation Advance" means the project preparation advance granted by the Bank to the Borrower pursuant to the letter agreement signed on behalf of the Bank on August 28, 1998, and on behalf of the Borrower on September 8, 1998.

(i) "Special Accounts" means the accounts referred to in Part B of Schedule 1 to this Agreement.

(j) "Sub-finance" means a loan and/or equity investment made or proposed to

be made by TTGV out of the proceeds of a Subsidiary Finance (defined hereafter) to a Beneficiary for a Sub-project (defined hereafter).

(k) "Sub-project" means a specific research and development project to be carried out by a Beneficiary using the proceeds of a Sub-finance.

(l) "Subsidiary Finance" means a loan and/or grant provided under a Subsidiary Finance Agreement (defined hereafter).

(m) "Subsidiary Finance Agreement" means an agreement to be entered into between the Borrower and each Project Agency pursuant to Section 3.01 (b) of this Agreement, as the same may be amended from time to time, and such term includes all schedules to each Subsidiary Finance Agreement, and the term "Subsidiary Finance Agreements" means, collectively, the Subsidiary Finance Agreements between the Borrower and the Project Agencies.

(n) "TPE Project Agreement" means the agreement between the Bank and TPE of even date herewith, "TUBITAK/UME Project Agreement" means the agreement between the Bank and TUBITAK/UME of even date herewith, "TUBITAK/MAM Project Agreement" means the agreement between the Bank and TUBITAK/MAM of even date herewith, and "TTGV Project Agreement" means the agreement between the Bank and TTGV of even date herewith, all as the same may be amended from time to time, and such terms include all schedules and agreements supplemental to said Project Agreements, and the term "Project Agreements" means, collectively, the TPE Project Agreement, the TUBITAK/UME Project Agreement, the TUBITAK/MAM Project Agreement and the TTGV Project Agreement.

Section 1.03. Each reference in the General Conditions to the Project Agency shall be deemed as a reference to TPE, TUBITAK/UME, TUBITAK/MAM and TTGV.

## ARTICLE II

### The Loan

Section 2.01. The Bank agrees to lend to the Borrower, on the terms and conditions set forth or referred to in the Loan Agreement, an amount equal to one hundred fifty-five million dollars (\$155,000,000).

Section 2.02. (a) The amount of the Loan may be withdrawn from the Loan Account in accordance with the provisions of Schedule 1 to this Agreement for expenditures made (or, if the Bank shall so agree, to be made) in respect of the reasonable cost of goods and services required for the Project and to be financed out of the proceeds of the Loan.

(b) Promptly after the Effective Date, the Bank shall, on behalf of the Borrower, withdraw from the Loan Account and pay to itself the amount required to repay the principal amount of the Project Preparation Advance withdrawn and outstanding as of such date and to pay all unpaid charges thereon. The unwithdrawn balance of the authorized amount of the Project Preparation Advance shall thereupon be cancelled.

Section 2.03. The Closing Date shall be December 31, 2003, or such later date as the Bank shall establish. The Bank shall promptly notify the Borrower of such later date.

Section 2.04. The Borrower shall pay to the Bank a fee in an amount equal to one percent (1%) of the amount of the Loan. On or promptly after the Effective Date, the Bank shall, on behalf of the Borrower, withdraw from the Loan Account and pay to itself the amount of said fee.

Section 2.05. The Borrower shall pay to the Bank a commitment charge at the rate of three-fourths of one percent ( $3/4$  of 1%) per annum on the principal amount of the Loan not withdrawn from time to time.

Section 2.06. (a) The Borrower shall pay interest on the principal amount of the Loan withdrawn and outstanding from time to time, at a rate for each Interest Period equal to LIBOR Base Rate plus LIBOR Total Spread.

(b) For the purposes of this Section:

(i) "Interest Period" means the initial period from and including the date of this Agreement to, but excluding, the first Interest Payment Date occurring thereafter, and after the initial period, each period from and including an Interest Payment Date to, but excluding the next following Interest Payment Date.

(ii) "Interest Payment Date" means any date specified in Section 2.07 of this Agreement.

(iii) "LIBOR Base Rate" means, for each Interest Period, the London interbank offered rate for six-month deposits in dollars for value the first day of such Interest Period (or, in the case of the initial Interest Period, for value the Interest Payment Date occurring on or next preceding the first day of such Interest Period), as reasonably determined by the Bank and expressed as a percentage per annum.

(iv) "LIBOR Total Spread" means, for each Interest Period: (A) three-fourths of one percent (3/4 of 1%); (B) minus (or plus) the weighted average margin, for such Interest Period, below (or above) the London interbank offered rates, or other reference rates, for six-month deposits, in respect of the Bank's outstanding borrowings or portions thereof allocated by the Bank to fund single currency loans or portions thereof made by it that include the Loan; as reasonably determined by the Bank and expressed as a percentage per annum.

(c) The Bank shall notify the Borrower of the LIBOR Base Rate and LIBOR Total Spread for each Interest Period, promptly upon the determination thereof.

(d) Whenever, in light of changes in market practice affecting the determination of the interest rates referred to in this Section 2.06, the Bank determines that it is in the interest of its borrowers as a whole and of the Bank to apply a basis for determining the interest rates applicable to the Loan other than as provided in said Section, the Bank may modify the basis for determining the interest rates applicable to the Loan upon not less than six (6) months' notice to the Borrower of the new basis. The new basis shall become effective on the expiry of the notice period unless the Borrower notifies the Bank during said period of its objection thereto, in which case said modification shall not apply to the Loan.

Section 2.07. Interest and other charges shall be payable semiannually in arrears on January 15 and July 15 in each year.

Section 2.08. The Borrower shall repay the principal amount of the Loan in accordance with the amortization schedule set forth in Schedule 3 to this Agreement.

### ARTICLE III

#### Execution of the Project

Section 3.01. (a) The Borrower declares its commitment to the objectives of the Project, and, to this end, without any limitation or restriction upon any of its other obligations under the Loan Agreement, shall cause each Project Agency to perform in accordance with the provisions of its respective Project Agreement all the obligations of each Project Agency therein set forth, shall take or cause to be taken all action, including the provision of funds, facilities, services and other resources, necessary or appropriate to enable TPE, TUBITAK/UME, TUBITAK/MAM and TTGV to perform such obligations, and shall not take or permit to be taken any action which would prevent or interfere with such performance.

(b) The Borrower shall make available to the respective Project Agency the proceeds of the Loan allocated from time to time to Categories (1), (2), (3) and (4) of the table set forth in Schedule 1 to this Agreement, all under Subsidiary Finance Agreements to be entered into between the Borrower and the respective Project Agency under terms and conditions satisfactory to the Bank. Except as the Bank shall otherwise agree, such terms and conditions shall include the following:

- (i) the Borrower shall make available to the respective Project Agency as  
Subsidiary Finance an amount in Dollars equivalent to the amount of the Loan allocated from time to time to Category (1), (2), (3) or (4) of the table set forth in Schedule 1 to this Agreement;
- (ii) the Borrower shall make available the principal amount of each Subsidiary Finance to each Project Agency as follows:
- (a) TPE - twenty-five percent (25%) loan and seventy-five percent (75%) grant;
- (b) TUBITAK/UME - twenty-five percent (25%) loan and seventy-five percent (75%) grant;
- (c) TUBITAK/MAM - twenty-five percent (25%) loan and seventy-five percent (75%) grant; and
- (d) TTGV - fifty percent (50%) loan and fifty percent (50%) grant for Sub-finance and one hundred percent (100%) grant for all other components;
- (iii) the term of each Subsidiary Finance made as a loan shall be 17 years, including a 5 year grace period;
- (iv) the Borrower shall not charge any interest on the principal amount of the Subsidiary Finance withdrawn and outstanding from time to time by any Project Agency; and
- (v) the principal amount of each Subsidiary Finance made as a loan shall be repaid by each Project Agency in Dollars and shall be the equivalent in Dollars (determined as of the date or respective dates of repayment) of the value of currency or currencies withdrawn from the Loan to finance the respective Subsidiary Finance.

(c) The Borrower shall exercise its rights under each Subsidiary Finance Agreement in such manner as to protect the interests of the Borrower and the Bank and to accomplish the purposes of the Loan, and, except as the Bank shall otherwise agree, the Borrower shall not assign, amend, abrogate or waive any Subsidiary Finance Agreement or any provision thereof.

Section 3.02. Except as the Bank shall otherwise agree, procurement of the goods, works and consultants' services required for the Project and to be financed out of the proceeds of the Loan shall be governed by the provisions of Schedule 4 to this Agreement.

Section 3.03. The Bank and the Borrower hereby agree that the obligations set forth in Sections 9.04, 9.05, 9.06, 9.07, 9.08 and 9.09 of the General Conditions (relating to insurance, use of goods and services, plans and schedules, records and reports, maintenance and land acquisition, respectively) shall be carried out by each Project Agency, pursuant to Section 2.03 of its respective Project Agreement.

#### ARTICLE IV

##### Financial Covenants

Section 4.01. (a) For all expenditures with respect to which withdrawals from the Credit Account were made on the basis of Project Management Reports or statements of expenditure, the Borrower shall:

- (i) maintain or cause to be maintained in accordance with sound accounting practices, records and accounts reflecting such expenditures;
- (ii) ensure that all records (contracts, orders, invoices, bills,

receipts and other documents) evidencing such expenditures are retained until at least one year after the Bank has received the audit report for the fiscal year in which the last withdrawal from the Credit Account was made; and

(iii) enable the Bank's representatives to examine such records.

(b) The Borrower shall:

(i) have the records and accounts referred to in paragraph (a) (i) of this Section including those for the Special Accounts for each fiscal year audited, in accordance with appropriate auditing principles consistently applied, by independent auditors acceptable to the Bank, who shall be appointed by September 30, 1999 on terms and conditions satisfactory to the Bank;

(ii) furnish to the Bank, as soon as available, but in any case not later than six (6) months after the end of each such year the report of such audit by said auditors of such scope and in such detail as the Bank shall have reasonably requested including a separate opinion by said auditors as to whether the statements of expenditure submitted during such fiscal year, together with the procedures and internal controls involved in their preparation can be relied upon to support the related withdrawals; and

(iii) furnish to the Bank such other information concerning said records and accounts and the audit thereof as the Bank shall from time to time reasonably request.

#### ARTICLE V

##### Remedies of the Bank

Section 5.01. Pursuant to Section 6.02(p) of the General Conditions, the following additional events are specified:

(a) Any Project Agency shall have failed to perform any of its obligations under its respective Project Agreement.

(b) As a result of events which have occurred after the date of the Loan Agreement, an extraordinary situation shall have arisen which shall make it improbable that any Project Agency will be able to perform its obligations under its respective Project Agreement.

(c) The statutes of any Project Agency shall have been amended, suspended, abrogated, repealed or waived so as to affect materially and adversely the ability of said Project Agency to perform any of its obligations under its respective Project Agreement.

Section 5.02. Pursuant to Section 7.01(k) of the General Conditions, the following additional events specified, namely, that the events specified in paragraphs (a) and (c) of Section 5.01 of this Agreement shall occur and shall continue for a period of sixty (60) days after notice thereof shall have been given by the Bank to the Borrower.

#### ARTICLE VI

##### Effective Date; Termination

Section 6.01. The following events are specified as additional conditions to the effectiveness of the Loan Agreement within the meaning of Section 12.01(c) of the General Conditions:

(a) that each Subsidiary Finance Agreement has been executed on behalf of the Borrower and the respective Project Agency;

(b) the financial management system referred to in Section 4.01(a) of each

Project Agreement has been established in a format satisfactory to the Bank;

(c) the auditors referred to in Section 4.01(b) of each Project Agreement have been appointed;

(d) a business plan, satisfactory to the Bank, has been adopted by TUBITAK/MAM and TTGV; and

(e) an institutional development plan, satisfactory to the Bank, has been adopted by each Project Agency.

Section 6.02. The following are specified as additional matters, within the meaning of Section 12.02(c) of the General Conditions, to be included in the opinion or opinions to be furnished to the Bank:

(a) that each Project Agreement has been duly authorized or ratified by the respective Project Agency, and is legally binding upon the respective Project Agency in accordance with its terms; and

(b) that each Subsidiary Finance Agreement has been duly authorized or ratified by the Borrower and the respective Project Agency and is legally binding upon the Borrower and the respective Project Agency in accordance with its terms.

Section 6.03. The date ninety (90) days after the date of this Agreement is hereby specified for the purposes of Section 12.04 of the General Conditions.

#### ARTICLE VII

##### Representative of the Borrower; Addresses

Section 7.01. The Undersecretary of the Treasury of the Borrower is designated as representative of the Borrower for the purposes of Section 11.03 of the General Conditions.

Section 7.02. The following addresses are specified for the purposes of Section 11.01 of the General Conditions:

For the Borrower:

Basbakanlik  
Hazine Mustesarligi  
Inonu Bulvari  
Emek, Ankara  
Republic of Turkey

Cable address:

MALIYE  
Hazine, Ankara

Telex:

821-42285  
(MLYE-TR) or  
821-42689  
(ANK-TR)

For the Bank:

International Bank for  
Reconstruction and Development  
1818 H Street, N.W.  
Washington, D.C. 20433  
United States of America

Cable address:

INTBAFRAD  
Washington, D.C.

Telex:

248423 (MCI) or  
64145 (MCI)

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized

representatives, have caused this Agreement to be signed in their respective names in Ankara, Turkey, as of the day and year first above written.

REPUBLIC OF TURKEY

By /s/ Aydin Karaoz

Authorized Representative

INTERNATIONAL BANK FOR  
RECONSTRUCTION AND DEVELOPMENT

By /s/ Ajay Chhibber

Acting Regional Vice President  
Europe and Central Asia

SCHEDULE 1

Withdrawal of the Proceeds of the Loan

A. General

1. The table below sets forth the Categories of items to be financed out of the proceeds of the Loan, the allocation of the amounts of the Loan to each Category and the percentage of expenditures for items so to be financed in each Category:

Category	Amount of the Loan Allocated (Expressed in Dollar Equivalent)	% of Expenditures to be Financed
(1) Part A of the Project (TPE)		
(a) Goods	2,600,000	100% of foreign expenditures 100% of local expenditures (ex-factory cost) and 80% of local ex- penditures for other items procured locally
(b) Works	6,800,000	75%
(c) Consultants services and training	5,000,000	100%
(2) Part B of the Project (TUBITAK/UME)		
(a) Goods	20,600,000	100% of foreign expenditures 100% of local expenditures (ex-factory cost) and 80% of local ex- penditures for



		other items procured locally
(b) Works	8,800,000	75%
(c) Consultants' services and training	2,350,000	100%
(3) Part C of the Project (TUBITAK/MAM)		
(a) Goods	24,000,000	100% of foreign expenditures 100% of local expenditures (ex-factory cost) and 80% of local ex- penditures for other items procured locally
(b) Works	2,000,000	75%
(c) Consultants' services and training	6,350,000	100%
(4) Part D of the Project (TTGV)		
(a) Goods		100% of foreign expenditures 100% of local expenditures (ex-factory cost) and 80% of local expenditures for other items procured locally
(i) for Part D (2)(b) of the Project	200,000	
(ii) for Part D (2)(c) of the Project	300,000	
(b) Consultants' services and training		
(i) for Part D (2)(a) of the Project	3,500,000	100%
(ii) for Part D (2)(b) of the Project	1,300,000	100%
(iii) for Part D (2)(c) of the Project	2,700,000	100%
(iv) for Part D (2)(d) of the Project	3,000,000	100%
(c) Sub-finance		
(i) for Part D (1)(a) of the Project	32,000,000	75%
(ii) for Part D (1)(b) of the Project	5,000,000	100%
(iii) for Part D (1)(c)	5,000,000	100%

	of the Project		
	(iv) for Part D (1)(d) of the Project	7,000,000	100%
(5)	Refunding of Project Preparation of Advance	2,500,000	Amount due pursuant to Section 2.02 (b)  this Agreement
(6)	Fee	1,550,000	Amount due under Section 2.04 of this Agreement
(7)	Unallocated	12,450,000	
	TOTAL	155,000,000 =====	

2. For the purposes of this Schedule:

(a) the term "foreign expenditures" means expenditures in the currency of any country other than that of the Borrower for goods or services supplied from the territory of any country other than that of the Borrower; and

(b) the term "local expenditures" means expenditures in the currency of the Borrower or for goods or services supplied from the territory of the Borrower provided, however, that if the currency of the Borrower is also that of another country from the territory of which goods or services are supplied, expenditures in such currency for such goods or services shall be deemed to be "foreign expenditures."

3. Notwithstanding the provisions of paragraph 1 above, no withdrawals shall be made in respect of:

(a) payments made for expenditures prior to the date of this Agreement, except that withdrawals, in an aggregate amount not exceeding the equivalent of \$2,000,000 may be made on account of payments made for expenditures before that date but after November 1, 1998;

(b) payments made for expenditures in respect of Category (2) set forth in the table in paragraph 1 of Schedule 1 to this Agreement until the Bank has received from TUBITAK/UME evidence of the establishment of an institutional renewal account with terms and conditions satisfactory to the Bank;

(c) payments made for expenditures in respect of Category (3) set forth in the table in paragraph 1 of Schedule 1 to this Agreement until the Bank has received from TUBITAK/MAM evidence of the establishment of an institutional renewal account with terms and conditions satisfactory to the Bank;

(d) payments made for expenditures in respect of Category 4(a)(i) and 4(b)(ii) set forth in the table in paragraph 1 of Schedule 1 to this Agreement until an independent NAC has been established and a protocol, satisfactory to the Bank, between the Undersecretariat of Foreign Trade of the Borrower, and TTGV has been executed, and

(e) payments made for expenditures in respect of Category 4(a)(ii) and 4(b)(iii) set forth in the table in paragraph 1 of Schedule 1 to this Agreement until a protocol, satisfactory to the Bank between the State Planning Organization of the Borrower and TTGV, has been executed.

4. The Bank may require withdrawals from the Loan Account to be made on the basis of statements of expenditure for expenditures: (i) for goods under contracts costing less than \$400,000 equivalent each; (ii) for works under contracts costing less than \$1,000,000 equivalent each; (iii) for each Sub-finance under Part D (1) of the Project; (iv) for consultants services under contracts costing less than \$100,000 equivalent each for consulting firms and under contracts costing less than \$50,000 equivalent for the employment of individual consultants; and (iv) for training, under

such terms and conditions as the Bank shall specify by notice to the Borrower and the respective Project Agencies.

B. Special Accounts

1. The Borrower shall open and maintain in Dollars a special deposit account for each Part of the Project in the Central Bank of Turkey or a commercial bank on terms and conditions satisfactory to the Bank, including appropriate protection against set-off, seizure and attachment.

2. After the Bank has received evidence satisfactory to it that a Special Account has been opened, withdrawals from the Loan Account of amounts to be deposited into said Special Account shall be made as follows:

(a) until the Bank shall have received: (i) the first Project Management Report of the Project Agencies referred to in Section 4.02(b) of the respective Project Agreements; and (ii) a request from the Borrower for withdrawal on the basis of Project Management Reports, withdrawals shall be made in accordance with the provisions of Annex A to this Schedule 1; and

(b) upon receipt by the Bank of a Project Management Report pursuant to Section 4.02(b) of the respective Project Agreement, accompanied by a request from the Borrower for withdrawal on the basis of Project Management Reports, all further withdrawals shall be made in accordance with the provisions of Annex B to this Schedule 1.

3. Payments out of each Special Account shall be made exclusively for Eligible Expenditures. For each payment made by the Borrower out of a Special Account, the Borrower shall, at such time as the Bank shall reasonably request, furnish to the Bank such documents and other evidence showing that such payment was made exclusively for Eligible Expenditures.

4. Notwithstanding the provisions of Part B.2 of this Schedule, the Bank shall not be required to make further deposits into any Special Account:

(a) if the Bank determines at any time that any Project Management Report does not adequately provide the information required pursuant to Section 4.02 of the respective Project Agreement;

(b) if the Bank determines at any time that all further withdrawals should be made by the Borrower directly from the Loan Account; or

(c) if the Borrower shall have failed to furnish to the Bank, within the period of time specified in Section 4.01(b)(ii) of the respective Project Agreement, any of the audit reports required to be furnished to the Bank pursuant to said Section in respect of the audit of (A) the records and accounts for any Special Account or (B) the records and accounts reflecting expenditures with respect to which withdrawals were made on the basis of Project Management Reports.

5. The Bank shall not be required to make further deposits into any Special Account in accordance with the provisions of Part B.2 of this Schedule if, at any time, the Bank shall have notified the Borrower of its intention to suspend in whole or in part the right of the Borrower to make withdrawals from the Loan Account pursuant to Section 6.02 of the General Conditions. Upon such notification, the Bank shall determine, in its sole discretion, whether further deposits into said Special Account may be made and what procedures should be followed for making such deposits, and shall notify the Borrower of its determination.

6. (a) If the Bank determines at any time that any payment out of any Special Account was made for an expenditure which is not an Eligible Expenditure, or was not justified by the evidence furnished to the Bank, the Borrower shall, promptly upon notice from the Bank, provide such additional evidence as the Bank may request, or deposit into said Special Account (or, if the Bank shall so request, refund to the Bank) an amount equal to the amount of such payment. Unless the Bank shall otherwise agree, no further deposit by the Bank into said Special Account shall be made until the Borrower has provided such evidence or made such deposit or refund, as the case may be.

(b) If the Bank determines at any time that any amount outstanding in any Special Account will not be required to cover payments for Eligible Expenditures during the six-month period following such determination, the Borrower shall, promptly upon notice from the Bank, refund to the Bank such outstanding amount.

(c) The Borrower may, upon notice to the Bank, refund to the Bank all or any portion of the funds on deposit in a Special Account.

(d) Refunds to the Bank made pursuant to sub-paragraph (a), (b) or (c) of this paragraph 6 shall be credited to the Loan Account for subsequent withdrawal or for cancellation in accordance with the provisions of this Agreement.

#### ANNEX A TO SCHEDULE 1

##### Operation of Special Accounts When Withdrawals Are Not Made On the Basis of Project Management Reports

1. The term "Authorized Allocation" means:

(a) in respect of the Special Account for Part A of the Project, an amount equivalent to \$1,500,000 to be withdrawn from the Loan Account and deposited into said Special Account pursuant to paragraph 2 of this Annex; provided, however, that unless the Bank shall otherwise agree, said Authorized Allocation shall be limited to an amount equivalent to \$750,000 until the aggregate amount of withdrawals from the Loan Account of amounts allocated to said Special Account's Eligible Categories, plus the total amount of all outstanding special commitments entered into by the Bank pursuant to Section 5.02 of the General Conditions in respect of amounts allocated to said Categories, shall equal or exceed the equivalent of \$6,000,000;

(b) in respect of the Special Account for Part B of the Project, an amount equivalent to \$3,000,000 to be withdrawn from the Loan Account and deposited into said Special Account pursuant to paragraph 2 of this Annex; provided, however, that unless the Bank shall otherwise agree, said Authorized Allocation shall be limited to an amount equivalent to \$1,500,000 until the aggregate amount of withdrawals from the Loan Account of amounts allocated to said Special Account's Eligible Categories, plus the total amount of all outstanding special commitments entered into by the Bank pursuant to Section 5.02 of the General Conditions in respect of amounts allocated to said Categories, shall equal or exceed the equivalent of \$13,000,000;

(c) in respect of the Special Account for Part C of the Project, an amount equivalent to \$3,000,000 to be withdrawn from the Loan Account and deposited into said Special Account pursuant to paragraph 2 of this Annex; provided, however, that unless the Bank shall otherwise agree, said Authorized Allocation shall be limited to an amount equivalent to \$1,500,000 until the aggregate amount of withdrawals from the Loan Account of amounts allocated to said Special Account's Eligible Categories, plus the total amount of all outstanding special commitments entered into by the Bank pursuant to Section 5.02 of the General Conditions in respect of amounts allocated to said Categories, shall equal or exceed the equivalent of \$13,000,000; and

(d) in respect of the Special Account for Part D of the Project, an amount equivalent to \$5,000,000 to be withdrawn from the Loan Account and deposited into said Special Account pursuant to paragraph 2 of this Annex; provided, however, that unless the Bank shall otherwise agree, said Authorized Allocation shall be limited to an amount equivalent to \$2,500,000 until the aggregate amount of withdrawals from the Loan Account of amounts allocated to said Special Account's Eligible Categories, plus the total amount of all outstanding special commitments entered into by the Bank pursuant to Section 5.02 of the General Conditions in respect of amounts allocated to said Categories, shall equal or exceed the equivalent of \$24,000,000.

2. Withdrawals of a Special Account's Authorized Allocation and subsequent withdrawals to replenish said Special Account shall be made as follows:

(a) For withdrawals of said Special Account's Authorized Allocation, the Borrower shall furnish to the Bank a request or requests for deposit into said Special Account of an amount or amounts which in the aggregate do not exceed said Authorized

Allocation. On the basis of each such request, the Bank shall, on behalf of the Borrower, withdraw from the Loan Account and deposit into said Special Account such amount as the Borrower shall have requested.

(b) For replenishment of said Special Account, the Borrower shall furnish to the Bank requests for deposit into said Special Account at such intervals as the Bank shall specify. Prior to or at the time of each such request, the Borrower shall furnish to the Bank the documents and other evidence required pursuant to Part B.3 of Schedule 1 to this Agreement for the payment or payments in respect of which replenishment is requested. On the basis of each such request, the Bank shall, on behalf of the Borrower, withdraw from the Loan Account and deposit into said Special Account such amount as the Borrower shall have requested and as shall have been shown by said documents and other evidence to have been paid out of said Special Account for Eligible Expenditures. Each such deposit into said Special Account shall be withdrawn by the Bank from the Loan Account under the Eligible Categories.

3. The Bank shall not be required to make further deposits into a Special Account, once the total unwithdrawn amount of the Loan allocated to said Special Account minus the total amount of all outstanding special commitments entered into by the Bank pursuant to Section 5.02 of the General Conditions in respect of expenditures to be financed out of the proceeds of the Loan allocated to the Eligible Categories, shall equal the equivalent of twice the amount of the Authorized Allocation. Thereafter, withdrawals from the Loan Account of the remaining unwithdrawn amount of the Loan allocated to said Categories shall follow such procedures as the Bank shall specify by notice to the Borrower. Such further withdrawals shall be made only after and to the extent that the Bank shall have been satisfied that all such amounts remaining on deposit in said Special Account as of the date of such notice will be utilized in making payments for Eligible Expenditures.

#### ANNEX B TO SCHEDULE 1

##### Operation of Special Accounts When Withdrawals Are Made On the Basis of Project Management Reports

1. Except as the Bank may otherwise specify by notice to the Borrower, all withdrawals from the Loan Account shall be deposited by the Bank into the respective Special Account in accordance with the provisions of Schedule 1 to this Agreement. Each such deposit into a Special Account shall be withdrawn by the Bank from the Loan Account under one or more of said Special Account's Eligible Categories.

2. Each application for withdrawal from the Loan Account for deposit into a Special Account shall be supported by a Project Management Report.

3. Upon receipt of each application for withdrawal of an amount of the Loan, the Bank shall, on behalf of the Borrower, withdraw from the Loan Account and deposit into the respective Special Account an amount equal to the lesser of: (a) the amount so requested; and (b) the amount which the Bank has determined, based on the Project Management Report accompanying said application, is required to be deposited in order to finance Eligible Expenditures during the six-month period following the date of such report; provided, however, that the amount so deposited, when added to the amount indicated by said Project Management Report to be remaining in: (a) the Special Account for Part A of the Project shall not exceed the equivalent of \$3,000,000; (b) the Special Account for Part B of the Project shall not exceed the equivalent of \$6,000,000; (c) the Special Account for Part C of the Project shall not exceed the equivalent of \$6,000,000; and (d) the Special Account for Part D of the Project shall not exceed the equivalent of \$10,000,000.

#### SCHEDULE 2

##### Description of the Project

The objectives of the Project are to: (i) facilitate Turkey's economic integration into the European Customs Union (ECU) by improving the competitiveness of Turkish industry through assistance in the harmonization of Turkish technology infrastructure services with ECU standards; and (ii) assist firms in upgrading their technological capabilities.

The Project consists of the following parts, subject to such modifications thereof as the Borrower and the Bank may agree from time to time to achieve such objectives.

Part A: Industrial Property Rights Services (TPE)

Construction and equipping of specialized buildings and strengthening the capacity of TPE to harmonize the Borrower's industrial property rights regime with ECU standards by improving patent filing and search and examination procedures and to enforce industrial property rights through the provision of technical assistance and training.

Part B: Metrology Services (TUBITAK/UME)

Construction and equipping of specialized buildings and strengthening the capacity of TUBITAK/UME to provide metrology services, including, inter alia, upgrading of existing measurement services, extending measurement services into new areas and developing technology transfer activities through the provision of technical assistance and training.

Part C: Restructuring of Research and Development Institutions (TUBITAK/MAM)

Provision of laboratory and office equipment and strengthening the capacity of TUBITAK/MAM as a network of research organizations through the provision of technical assistance and training.

Part D: Technology Upgrading (TTGV)

(1) Provision of Sub-finance for: (a) technology upgrading and modification activities; (b) technology service centers; (c) technopark initiatives; and (d) venture capital funds.

(2) Provision of technical assistance and training: (a) to strengthen the capacity of TTGV to provide support for technology development projects and preparatory work for the establishment of an independent NAC; (b) for the establishment of an independent NAC by the Undersecretariat of Foreign Trade of the Borrower; (c) for the implementation through the State Planning Organization of the Borrower of a pilot program to address Y2K issues; and (d) to strengthen the capacity of TTGV to provide technology support services to private enterprises.

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The Project is expected to be completed by June 30, 2003.

SCHEDULE 3

Amortization Schedule

Date Payment Due	Payment of Principal (Expressed in Dollars*
On each January 15 and July 15	
Beginning January 15, 2005 through January 15, 2016	6,460,000
On July 15, 2016	6,420,000

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\* The figures in this column represent the amount in Dollars to be repaid, except as provided in Section 4.04 (d) of the General Conditions.

#### SCHEDULE 4

##### Procurement

##### Section I. Procurement of Goods and Works

###### Part A: General

Goods and works shall be procured in accordance with the provisions of Section I of the "Guidelines for Procurement under IBRD Loans and IDA Credits" published by the Bank in January 1995 and revised in January and August 1996, September 1997 and January 1999 (the Guidelines) and the following provisions of Section I of this Schedule.

###### Part B: International Competitive Bidding

1. Except as otherwise provided in Part C of this Section, goods and works shall be procured under contracts awarded in accordance with the provisions of Section II of the Guidelines and paragraph 5 of Appendix 1 thereto.

2. The following provisions shall apply to goods and works to be procured under contracts awarded in accordance with the provisions of paragraph 1 of this Part B.

###### (a) Grouping of contracts

To the extent practicable, contracts for goods shall be grouped in bid packages estimated to cost \$100,000 equivalent or more each.

###### (b) Preference for domestically manufactured goods

The provisions of paragraphs 2.54 and 2.55 of the Guidelines and Appendix 2 thereto shall apply to goods manufactured in the territory of the Borrower.

###### Part C: Other Procurement Procedures

###### 1. Limited International Bidding

Goods estimated to cost between \$400,000 to \$500,000 equivalent per contract, up to an aggregate amount not to exceed \$1,000,000 equivalent, and goods, which the Bank agrees can only be purchased from a limited number of suppliers, regardless of the cost thereof, may be procured, under contracts awarded in accordance with the provisions of paragraph 3.2 of the Guidelines.

###### 2. National Competitive Bidding

Works estimated to cost less than \$3,000,000 equivalent per contract, up to an

aggregate amount not to exceed \$5,000,000 equivalent, may be procured under contracts awarded in accordance with the procedures agreed with the Bank.

### 3. International Shopping

Goods estimated to cost less than \$400,000 equivalent per contract, up to an aggregate amount not to exceed \$20,700,000 equivalent, may be procured under contracts awarded on the basis of international shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

### 4. National Shopping

Goods estimated to cost less than \$100,000 equivalent per contract, up to an aggregate amount not to exceed \$2,000,000 equivalent, may be procured under contracts amended on the basis of national shopping procedures in accordance with the provisions of paragraphs 3.5 and 3.6 of the Guidelines.

### 5. Direct Contracting

Goods which should be procured as an extension of an existing contract must be purchased from the original supplier to be compatible with existing equipment are of a proprietary nature/must be procured from a particular supplier as a condition of a performance guarantee or are required to respond to natural disasters and costing \$2,500,000 equivalent or less in the aggregate, may, with the Bank's prior agreement, be procured in accordance with the provisions of paragraph 3.7 of the Guidelines.

### 6. Procurement of Small Works

Works estimated to cost less than \$100,000 equivalent per contract, up to an aggregate amount not to exceed \$500,000 equivalent, may be procured under lump-sum, fixed-price contracts awarded on the basis of quotations obtained from at least three (3) qualified domestic contractors in response to a written invitation. The invitation shall include a detailed description of the works, including basic specifications, the required completion date, a basic form of agreement acceptable to the Bank, and relevant drawings, where applicable. The award shall be made to the contractor who offers the lowest price quotation for the required work, and who has the experience and resources to complete the contract successfully.

### 7. Commercial Practices

Goods and works costing less than \$2,000,000 per contract required by private sector Beneficiaries in carrying out Sub-projects under Part D (1) of the Project may be procured in accordance with commercial practices acceptable to the Bank.

## Part D: Review by the Bank of Procurement Decisions

### 1. Procurement Planning

Prior to the issuance of any invitations to prequalify for bidding or to bid for contracts, the proposed procurement plan for the Project shall be furnished to the Bank for its review and approval, in accordance with the provisions of paragraph 1 of Appendix 1 to the Guidelines. Procurement of all goods and works shall be undertaken in accordance with such procurement plan as shall have been approved by the Bank, and with the provisions of said paragraph 1.

### 2. Prior Review

(a) With respect to: (i) each contract for goods and works awarded pursuant to the provisions of Part B hereof; and (ii) each contract for goods awarded pursuant to the provisions of Part C.1 hereof, the procedures set forth in paragraphs 2 and 3 of Appendix 1 to the Guidelines shall apply.

(b) With respect to: (i) the first two contracts for works awarded by each Project Agency pursuant to the provisions of Parts C.2 and C.6 hereof; (ii) the first two contracts for goods awarded by each Project Agency pursuant to the provisions of Parts C.3 and C.4 hereof; and (iii) each contract for goods to be procured in accordance with the procedures referred to in C.5 above, the following procedures



shall apply:

(i) prior to the execution of each said contract under shopping procedures, the Borrower shall provide to the Bank a report on the comparison and evaluation of quotations received;

(ii) prior to the execution of each said contract procured under direct contracting or shopping procedures, the Borrower shall provide to the Bank a copy of the specifications and the draft contract; and

(iii) the procedures set forth in paragraphs 2(f), 2(g) and 3 of Appendix 1 to the Guidelines shall apply.

### 3. Post Review

With respect to each contract not governed by paragraph 2 of this Part, the procedures set forth in paragraph 4 of Appendix 1 to the Guidelines shall apply.

## Section II. Employment of Consultants

### Part A: General

Consultants' services shall be procured in accordance with the provisions of the Introduction and Section IV of the "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" published by the Bank in January 1997 and revised in September 1997 and January 1999 (the Consultant Guidelines) and the following provisions of Section II of this Schedule.

### Part B: Quality- and Cost-based Selection

1. Except as otherwise provided in Part C of this Section, consultants' services shall be procured under contracts awarded in accordance with the provisions of Section II of the Consultant Guidelines, paragraph 3 of Appendix 1 thereto, Appendix 2 thereto, and the provisions of paragraphs 3.13 through 3.18 thereof applicable to quality- and cost-based selection of consultants.

2. The following provisions shall apply to consultants' services to be procured under contracts awarded in accordance with the provisions of the preceding paragraph. The short list of consultants for the procurement of services for the Project, estimated to cost less than \$100,000 equivalent per contract, may comprise entirely national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

### Part C: Other Procedures for the Selection of Consultants

#### 1. Quality-based Selection

Services for studies and research contracts and other services under the Project as agreed with the Bank shall be procured under contracts awarded in accordance with the provisions of paragraphs 3.1 through 3.4 of the Consultant Guidelines and the prior approval of the Bank.

#### 2. Selection Based on Consultants' Qualifications

Services for Project implementation support and other services as agreed with the Bank under the Project estimated to cost less than \$100,000 equivalent per contract may be procured under contracts awarded in accordance with the provisions of paragraphs 3.1 and 3.7 of the Consultant Guidelines.

#### 3. Single Source Selection

Services for specialized activities under the Project which are estimated to cost less than \$100,000 equivalent per contract, may, with the Bank's prior agreement, be procured in accordance with the provisions of paragraphs 3.8 through 3.11 of the Consultant Guidelines.

#### 4. Commercial Practices

Services for carrying out Sub-projects by private sector Beneficiaries under Part D (1) of the Project estimated to cost less than \$500,000 equivalent per contract may be procured in accordance with commercial practices acceptable to the Bank. For services costing the equivalent of \$200,000 or more, the Project Agency shall furnish to the Bank information on the terms of reference and estimated cost.

5. Individual Consultants

Services for procurement training and project management shall be procured under contracts awarded to individual consultants, in accordance with the provisions of paragraphs 5.1 through 5.3 of the Consultant Guidelines and with the prior approval of the Bank.

Part D: Review by the Bank of the Selection of Consultants

1. Selection Planning

Prior to the issuance to consultants of any requests for proposals, the proposed plan for the selection of consultants under the Project shall be furnished to the Bank for its review and approval, in accordance with the provisions of paragraph 1 of Appendix 1 to the Consultant Guidelines. Selection of all consultants' services shall be undertaken in accordance with such selection plan as shall have been approved by the Bank, and with the provisions of said paragraph 1.

2. Prior Review

(a) With respect to each contract for the employment of consulting firms for estimated to cost the equivalent of \$100,000 or more, the procedures set forth in paragraphs 1, 2 and (other than the third subparagraph of paragraph 2(a)) and 5 of Appendix 1 to the Consultant Guidelines shall apply.

(b) With respect to each contract for the employment of individual consultants estimated to cost the equivalent of \$50,000 or more, the qualifications, experience, terms of reference and terms of employment of the consultants shall be furnished to the Bank for its prior review and approval. The contract shall be awarded only after the said approval shall have been given.

3. Post Review

With respect to each contract not governed by paragraph 2 of this Part, the procedures set forth in paragraph 4 of Appendix 1 to the Consultant Guidelines shall apply.

SCHEDULE 5

Implementation Program

1. The Borrower shall, through its Undersecretariat of the Treasury, have overall responsibility for the coordination of the Project in accordance with the requirements set forth or referred to in the PIP.

2. The Borrower shall, through its Undersecretariat of Foreign Trade, maintain an independent NAC with policy and strategy statements, organization, management, personnel resources, by-laws, operating procedures and the structure and procedures of its board of directors in a manner satisfactory to the Bank.

3. The Borrower shall, through its State Planning Organization, prepare and furnish to the Bank, by August 31, 1999, an implementation plan for carrying out the Y2K pilot program in a manner satisfactory to the Bank.

4. The Borrower shall take all measures necessary on its part to ensure that TUBITAK/UME and TUBITAK/MAM each comply with the requirements for the establishment and operation of an institutional renewal account referred to in paragraph 2 of the Schedule to the TUBITAK/UME Project Agreement and paragraph 2 of the Schedule to the TUBITAK/MAM Project Agreement, respectively.

5. The Borrower shall, jointly with the Project Agencies:

(a) maintain policies and procedures adequate to enable it to monitor and evaluate on an ongoing basis, in accordance indicators acceptable to the Bank, the carrying out of the Project and the achievement of the objectives thereof;

(b) prepare, under terms of reference satisfactory to the Bank, and furnish to the Bank, on or about June 30, 2001, a mid-term report integrating the results of the monitoring and evaluation activities performed pursuant to paragraph (a) of this Section, on the progress achieved in the carrying out of the Project during the period preceding the date of said report and setting out the measures recommended to ensure the efficient carrying out of the Project and the achievement of the objectives thereof during the period following such date; and

(c) review with the Bank, by July 31, 2001, or such later date as the Bank shall request, the report referred to in paragraph (b) of this Section, and, thereafter, take all measures required to ensure the efficient completion of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Bank's views on the matter.

