

No. 10119

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**INTERNATIONAL BANK FOR  
RECONSTRUCTION AND DEVELOPMENT  
and  
BRAZIL**

**Loan Agreement—*Highway Construction Project* (with  
annexed Loan Regulations No. 3, as amended). Signed  
at Rio de Janeiro on 23 October 1968**

*Authentic text: English.*

*Registered by the International Bank for Reconstruction and Development  
on 31 December 1969.*

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**BANQUE INTERNATIONALE POUR  
LA RECONSTRUCTION ET LE DÉVELOPPEMENT  
et  
BRÉSIL**

**Contrat d'emprunt — *Projet de construction de routes*  
(avec, en annexe, le Règlement n° 3 sur les emprunts,  
tel qu'il a été modifié). Signé à Rio de Janeiro le  
23 octobre 1968**

*Texte authentique: anglais.*

*Enregistré par la Banque internationale pour la reconstruction et le dévelop-  
pement le 31 décembre 1969.*

## LOAN AGREEMENT <sup>1</sup>

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AGREEMENT, dated October 23, 1968, between INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (hereinafter called the Bank) and BRAZIL (hereinafter called the Borrower).

WHEREAS the Borrower has requested the Bank to assist in the financing of a highway project consisting, *inter alia*, of the construction and paving of national and state highways;

WHEREAS the Borrower has adopted a plan of action for its transport sector to improve the efficiency and economy of the use of resources in this sector and the main features of said plan have been communicated to the Bank;

WHEREAS the construction and paving of the highways described in Schedule 3 under Parts A(1), A(2), B(1), B(3) and B(4) of the Project will be executed by certain State Highway Departments under contracts concluded with them;

WHEREAS the Borrower will itself carry out or cause to be carried out the rest of the Project as hereinafter provided; and

WHEREAS the Departamento Nacional de Estradas de Rodagem (hereinafter called the DNER), an *autarquia* of the Borrower's Ministry of Transport, has been designated by the Borrower to act on its behalf as the agency charged with the execution of the Project;

NOW THEREFORE the parties hereto hereby agree as follows:

### *Article I*

#### LOAN REGULATIONS; SPECIAL DEFINITION

*Section 1.01.* The parties to this Agreement accept all the provisions of Loan Regulations No. 3 of the Bank, dated February 15, 1961 as amended February 9, 1967, <sup>2</sup> with the same force and effect as if they were fully set forth herein, subject, however, to the following modification thereof (said Loan Regulations No. 3, as so modified, being hereinafter called the Loan Regulations): Section 4.01 is deleted.

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<sup>1</sup> Came into force on 16 May 1969, upon notification by the Bank to the Government of Brazil.

<sup>2</sup> See p. 228 of this volume.

*Section 1.02.* Unless the context otherwise requires, the term "States" wherever used in this Loan Agreement means the State of Minas Gerais, the State of Parana, the State of Rio Grande do Sul, and the State of Santa Catarina, respectively, and shall include the political subdivisions, public agencies and *autarquias* thereof.

## Article II

### THE LOAN

*Section 2.01.* The Bank agrees to lend to the Borrower an amount in various currencies equivalent to twenty-six million dollars (\$ 26,000,000).

*Section 2.02.* (a) The Bank shall open a Loan Account on its books in the name of the Borrower and shall credit to such Account the amount of the Loan.

(b) The amount of the Loan may be withdrawn from the Loan Account as provided in, and subject to the rights of cancellation and suspension set forth in, this Agreement and the Loan Regulations and in accordance with the allocation of the proceeds of the Loan set forth in Schedule 1 to this Agreement, as such allocation shall be modified from time to time pursuant to the provisions of such Schedule or by further agreement between the Borrower and the Bank.

*Section 2.03.* (a) The Borrower shall be entitled to withdraw from the Loan Account in respect of the reasonable cost of goods required for the Project and to be financed under this Loan Agreement:

- (i) such amounts as shall have been paid (or, if the Bank shall so agree, as shall be required to meet payments to be made) in currencies other than in the currency of the Borrower for expenditures under Category III of the allocation of the proceeds of the Loan set forth in Schedule 1 to this Agreement; and
- (ii) the equivalent of forty per cent (40 %) of such amounts as shall have been paid for expenditures under Categories I and II of the Allocation of the Proceeds of the Loan set forth in said Schedule 1, on the basis of the unit price costs specified in the respective contracts, expressed in dollars equivalents at the exchange rate determined by the Bank at the date of the bid openings; provided, however, that if there shall be an increase in the estimate of such expenditures, the Bank may by notice to the Borrower adjust the above percentage as required in order that withdrawals of the amount of the Loan then allocated to any such Category and not withdrawn may continue *pro rata* with the expenditures remaining to be made under such Category.

(b) Except as shall be otherwise agreed between the Borrower and the Bank, no withdrawals shall be made on account of: (i) expenditures made prior to April 1, 1967 for expenditures under Category III of said Schedule 1 or expenditures made prior to the date of this Agreement for expenditures under Categories I and II of said Schedule, or (ii) expenditures made in the territories of any country which is not a member of the Bank (except Switzerland) or for goods produced in (including services supplied from) such territories.

*Section 2.04.* Withdrawals from the Loan Account pursuant to Section 2.03 (a) (ii) of this Agreement shall be in such currency or currencies as the Bank shall from time to time reasonably select.

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

*Section 2.06.* The Borrower shall pay interest at the rate of six and one-half per cent ( $6\frac{1}{2}$  %) per annum on the principal amount of the Loan so withdrawn and outstanding from time to time.

*Section 2.07.* Except as the Bank and the Borrower shall otherwise agree, the charge payable for special commitments entered into by the Bank at the request of the Borrower pursuant to Section 4.02 of the Loan Regulations shall be at the rate of one-half of one per cent ( $\frac{1}{2}$  of 1 %) per annum on the principal amount of any such special commitment outstanding from time to time.

*Section 2.08.* Interest and other charges shall be payable semi-annually on May 15 and November 15 in each year.

*Section 2.09.* The Borrower shall repay the principal of the Loan in accordance with the Amortization Schedule set forth in Schedule 2 to this Agreement.

### *Article III*

#### USE OF PROCEEDS OF THE LOAN

*Section 3.01.* The Borrower shall apply the proceeds of the Loan in accordance with the provisions of this Agreement to expenditures on the Project, described in Schedule 3 to this Agreement.

*Section 3.02.* Except as the Bank shall otherwise agree, (i) the goods (other than consulting services) to be financed out of the proceeds of the Loan shall be procured on the basis of international competitive bidding in accordance with the Guidelines for Procurement under World Bank Loans

and IDA Credits, published by the Bank in February 1968, and in accordance with such other procedures supplementary thereto as shall be agreed between the Borrower and the Bank, and (ii) contracts for the procurement of such goods (including consulting services) shall be subject to the approval of the Bank.

*Section 3.03.* Except as the Bank shall otherwise agree, the Borrower shall cause all goods financed out of the proceeds of the Loan to be used exclusively in carrying out the Project.

#### *Article IV*

##### BONDS

*Section 4.01.* If and as the Bank shall from time to time request, the Borrower shall execute and deliver Bonds representing the principal amount of the Loan as provided in Article VI of the Loan Regulations.

*Section 4.02.* The Minister of Finance of the Borrower is designated as authorized representative of the Borrower for the purposes of Section 6.12 of the Loan Regulations. The Minister of Finance of the Borrower may designate additional or other authorized representative by appointment in writing notified to the Bank.

#### *Article V*

##### PARTICULAR COVENANTS

*Section 5.01.* The Borrower shall carry out Part A(3), Part B(2) and Part C of the Project, and shall cause the other Parts of the Project to be carried out, with due diligence and efficiency and in conformity with sound engineering and financial practices, and shall provide, promptly as needed, the funds, facilities, services and other resources required for the purpose.

*Section 5.02.* (a) The Borrower and the States shall enter into agreements satisfactory to the Bank for the purpose of (i) the carrying out by the States of Parts A(1), A(2), B(1), B(3) and B(4) of the Project and (ii) ensuring the implementation by the States of the undertakings set forth in Sections 5.02(c), 5.02(d) and 5.14 of this Agreement. Such agreements shall contain terms whereby the Borrower shall obtain from the States the cost of the said Parts of the Project not financed from the Loan Account and rights adequate to ensure that the execution of said Parts of the Project shall at all times be carried out under terms and conditions satisfactory to the Bank including the right of the Bank to inspect said Parts of the Project and to request information and exchange views thereon with the States.

(b) The Borrower shall exercise every right and recourse available to it to cause the States to carry out and punctually to perform all the covenants, agreements and obligations on their part to be performed as set forth in the said agreements; shall take or cause to be taken all action as may be necessary or appropriate to enable the States to perform such covenants, agreements and obligations and shall not take any action or permit any of its agencies to take any action that would hinder, interfere with or prevent the performance by the States of such covenants, agreements and obligations.

(c) The Borrower shall employ the consulting firms that were responsible for the detailed engineering studies of the roads included in the Project for the purpose of supervision of the construction of the said roads provided that the terms and conditions of their proposals are acceptable to and approved by the Borrower and the Bank.

(d) The general design standards for the roads included in the Project are set forth in Schedule 4 to this Agreement,

(e) The roads included in the Project shall be constructed and paved by contractors acceptable to the Bank, upon such terms and conditions as shall have been approved by the Bank.

*Section 5.03.* (a) The Borrower shall establish a Fund (hereinafter called the Project Revolving Fund) to be used exclusively to make payments for the cost of the goods required to carry out the Project. The Borrower shall deposit in the Project Revolving Fund all amounts as shall be from time to time required to permit the payments heretofore specified to be made out of the said Fund, and the said Fund shall be maintained until all such payments shall have been made. The Borrower shall maintain or cause to be maintained records adequate to reflect in accordance with consistently maintained sound accounting practices the operations and financial condition of the Project Revolving Fund.

(b) Without restriction or limitation upon the provisions of the foregoing subsection, the Borrower shall deposit in the Project Revolving Fund on a date not later than the Effective Date the amount of eighteen million new cruzeiros (Ncr \$ 18,000,000), and thereafter shall at all times maintain in the said Fund amounts sufficient to meet payments required to cover three months of Project costs as estimated on the basis of the work schedules relating thereto.

*Section 5.04.* The Borrower shall (i) cause to be maintained records adequate to identify the goods finance out of the proceeds of the Loan, to disclose the use thereof in the Project, and to record the progress of the Project (including the cost thereof); (ii) enable the Bank's representatives to inspect the Project, the goods and any relevant records and documents; and (iii) cause to be furnished to the Bank all such information as the Bank

shall reasonably request concerning the expenditure of the proceeds of the Loan, the Project, the goods, and the operations, administration and financial condition of the Project Revolving Fund and of the agency or agencies of the Borrower and the States responsible for the carrying out of the Project or any part thereof.

*Section 5.05.* (a) The Borrower and the Bank shall cooperate fully to assure that the purposes of the Loan will be accomplished. To that end, each of them shall furnish to the other all such information as it shall reasonably request with regard to the general status of the Loan. On the part of the Borrower, such information shall include information with respect to financial and economic conditions in the territories of the Borrower and the international balance of payments position of the Borrower.

(b) The Borrower and the Bank shall from time to time exchange views through their representatives with regard to the performance of the Borrower under the Loan Agreement, or of the States in respect of the Project, the administration, operations and financial condition of the Project Revolving Fund and other matters relating to the purposes of the Loan and the maintenance of the service thereof. The Borrower shall promptly inform the Bank of any condition which interferes with, or threatens to interfere with, the accomplishment of the purposes of the Loan or the maintenance of the service thereof.

(c) The Borrower shall afford all reasonable opportunity for accredited representatives of the Bank to visit any part of the territories of the Borrower for purposes related to the Loan.

*Section 5.06.* The principal of, and interest and other charges on, the Loan and the Bonds shall be paid without deduction for, and free from, any taxes, and free from all restrictions, imposed under the laws of the Borrower or laws in effect in its territories; provided, however, that the provisions of this Section shall not apply to taxes of payment under any Bond to a holder thereof other than the Bank when such Bond is beneficially owned by an individual or corporate resident of the Borrower.

*Section 5.07.* The Loan Agreement and the Bonds shall be free from any taxes that shall be imposed under the laws of the Borrower or laws in effect in its territories on or in connection with the execution, issue, delivery or registration thereof, and the Borrower shall pay all such taxes, if any, imposed under the laws of the country or countries in whose currency the Loan and the Bonds are payable or laws in effect in the territories of such country or countries.

*Section 5.08.* It is the mutual intention of the Borrower and the Bank that not other external debt shall enjoy any priority over the Loan in the allocation or realization of foreign exchange. To that end, the Borrower undertakes that, except as the Bank shall otherwise agree, if any lien shall be created on any assets of the Borrower or of any of its political subdivisions or of any agency of any such political subdivision as security for any external debt, such lien will *ipso facto* equally and ratably secure the payment of the principal of, and interest and other charges on, the Loan and the Bonds, and that in the creation of any such lien express provision will be made to that effect; provided, however, that the foregoing provisions of this Section shall not apply to: (i) any lien created on property, at the time of purchase thereof, solely as security for the payment of the purchase price of such property; (ii) any lien on commercial goods to secure a debt maturing not more than one year after the date on which it is originally incurred and to be paid out of the proceeds of sale of such commercial goods; or (iii) any lien arising in the ordinary course of banking transactions and securing a debt maturing not more than one year after its date.

The term “assets of the Borrower” as used in this Section includes assets of the Borrower or of any agency of the Borrower, including Banco Central do Brasil and any other institution performing the functions of a central bank for the Borrower.

*Section 5.09.* Except as the Borrower and the Bank shall otherwise agree, the Borrower shall cause DNER to be reorganized during 1969-1971 in accordance with a plan prepared by the Getulio Vargas Foundation and within a time schedule recommended by it. The Borrower shall afford the Bank reasonable opportunity to review such reorganization plan and the schedule for its implementation.

*Section 5.10.* The Borrower shall promptly take all necessary steps in order to acquire the rights-of-way not already acquired by the Borrower which shall be required for carrying out the Parts of the Project to be carried out by the Borrower and shall not award any construction or paving contract relating thereto prior to such acquisition.

*Section 5.11.* The Borrower shall take appropriate measures to ensure that the regulations limiting the size and weight of vehicles using the national highway network in the States are fully enforced.

*Section 5.12.* The Borrower shall cause the roads included in its national highway network in the States to be adequately maintained and all necessary repairs thereof to be made promptly, all in accordance with sound engineering practice. The Borrower shall provide promptly as needed the funds, facilities, services and other resources required for the purpose.



*Section 5.13.* The Borrower shall establish and maintain facilities to collect and record systematically such data as are required to assess the technical, economic and financial aspects of the highway systems included in the Borrower's territories.

*Section 5.14.* The Borrower shall obtain from the States their agreement to (i) reorganize their highway departments in accordance with a plan and within a time table acceptable to the Bank; (ii) acquire the rights of way required for the carrying out of the Parts of the Project to be carried out by the States prior to awarding any construction or paving contract relating thereto; (iii) take appropriate measures to ensure full enforcement of regulations limiting the size and weights of vehicles using their highway network; (iv) take measures satisfactory to the Bank to improve their highway maintenance organization and operations and (v) cause the roads included in their highway network to be adequately maintained and all necessary repairs thereof to be made promptly, all in accordance with sound engineering practice.

#### *Article VI*

##### REMEDIES OF THE BANK

*Section 6.01.* (i) If any event specified in paragraph (a) or paragraph (b) of Section 5.02 of the Loan Regulations shall occur and shall continue for a period of thirty days, or (ii) if any event specified in paragraph (c) of Section 5.02 of the Loan Regulations or in Section 6.02 of this Agreement shall occur and shall continue for a period of sixty days after notice thereof shall have been given by the Bank to the Borrower, then at any subsequent time during the continuance thereof, the Bank, at its option, may declare the principal of the Loan and of all the Bonds then outstanding to be due and payable immediately, and upon any such declaration such principal shall become due and payable immediately, anything in this Agreement or in the Bonds to the contrary notwithstanding.

*Section 6.02.* The following is specified as an additional event for the purposes of Section 5.02 (i) of the Loan Regulations:

A default shall have occurred in the performance of any covenant or agreement under an agreement entered into pursuant to Section 5.02 (a) of this Agreement.

#### *Article VII*

##### EFFECTIVE DATE; TERMINATION

*Section 7.01.* The following events are specified as additional conditions to the effectiveness of this Agreement within the meaning of Section 9.01 (b) of the Loan Regulations:

- (a) (i) that the Borrower and the States have entered into the required agreements pursuant to Section 5.02 (a) of this Loan Agreement and (ii) that the execution and delivery of the said agreements on behalf of the Borrower and the respective States have been duly authorized or ratified by all necessary action of the Borrower and the States concerned;
- (b) that arrangements, satisfactory to the Bank, have been made to create the Project Revolving Fund and that the initial deposit therein specified in Section 5.03 (b) of this Agreement shall have been made;
- (c) that Article 75 of the Borrower's Decree Law No. 37 dated November 18, 1966 shall have come into force and effect;
- (d) that the Borrower and the States have adopted bidding and contracting documents satisfactory to the Bank including any legislation required therefor for procurement of the goods financed out of the proceeds of this Agreement;
- (e) that the Loan Agreement has been duly registered by Banco Central do Brasil; and
- (f) that all necessary acts, consents and approvals to be performed or given by the Borrower, the States, its or their political subdivisions or agencies or by any agency of any political subdivision or otherwise to be performed or given in order to authorize the carrying out of the Project and to enable the Borrower and the States to perform all of the covenants, agreements and obligations of the Borrower and the States in the Loan Agreement and agreements entered into pursuant to Section 5.02 (a) of this Agreement contained, together with all necessary powers and rights in connection therewith, have been performed or given.

*Section 7.02.* The following are specified as additional matters, within the meaning of Section 9.02 (c) of the Loan Regulations, to be included in the opinion or opinions to be furnished the Bank:

- (a) that the respective States are authorized to enter into the agreements executed pursuant to Section 5.02 (a) of this Loan Agreement and that the said agreements have been duly authorized or ratified by and executed and delivered on their behalf and constitute valid and binding obligations of the respective States in accordance with their terms;
- (b) that the conditions provided for in Subsections (b), (c) and (d) of Section 7.01 of this Agreement have been duly and validly implemented and are effective in accordance with their terms;
- (c) that all acts, consents and approvals referred to in Section 7.01 (f), together with all necessary powers and rights in connection therewith, have been duly and validly performed or given and that no other such acts, consents or approvals are required in order to authorize the carrying out of the Project and to enable the Borrower and the States to perform

- all of the covenants, agreements and obligations of the Borrower and the States in the Loan Agreement and in the agreements entered into pursuant to Section 5.02 (a) of this Loan Agreement contained; and
- (c) that the Loan Agreement has been duly registered by Banco Central do Brasil.

*Section 7.03.* If this Agreement shall not have come into force and effect by February 25, 1969, this Agreement and all obligations of the parties hereunder shall terminate, unless the Bank, after consideration of the reasons for the delay, establishes a later date for purposes of this Section. The Bank shall promptly notify the Borrower of such later date.

### *Article VIII*

#### MISCELLANEOUS

*Section 8.01.* The Closing Date shall be December 31, 1972, or such later date as may be agreed by the Bank.

*Section 8.02.* The following addresses are specified for the purposes of Section 8.01 of the Loan Regulations:

For the Borrower:

Departamento Nacional de Estradas de Rodagem  
Avenida Presidente Vargas 522  
Rio de Janeiro, Brazil

Cable address:

Denervia  
Rio de Janeiro

For the Bank:

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

Cable address:

Intbafrad  
Washington, D.C.

*Section 8.03.* The General Director of DNER is designated for the purposes of Section 8.03 of the Loan Regulations.

IN WITNESS WHEREOF, the parties hereto, acting through their representatives thereunto duly authorized, have caused this Agreement to be signed in their respective names and to be delivered in the City of Rio de Janeiro, Brazil, as of the day and year first above written.

Brazil:

By Antonio DELFILM NETO  
Minister of Finance

International Bank for Reconstruction and Development:

By Robert S. MCNAMARA  
President

### SCHEDULE 1

#### ALLOCATION OF THE PROCEEDS OF THE LOAN

<i>Category</i>	<i>in US\$ Equivalents Amounts</i>
I. Construction and paving of the following highways:	
BR-381, Section Ipatinga-Governador Valadares	
BR-386, Section Tabai-Canoas	
BR-116, Section São Leopoldo-Novo Hamburgo . . . . .	9,200,000
II. Paving of the following highways:	
BR-476, Section São Mateus do Sul-União da Vitoria	
BR-468, Section Km 40-Km 83	
BR-470, Section Rio do Sul-Junction with BR-116	
RS-4, Cai-Farroupilha . . . . .	10,600,000
III. Detailed engineering and supervision of construction . . . . .	1,900,000
IV. Unallocated . . . . .	4,300,000
	TOTAL \$ 26,000,000

#### REALLOCATION UPON CHANGE IN COST ESTIMATES

1. If the estimate of the cost of the items included in any of the Categories I to III shall decrease, the amount of the Loan then allocated to, and no longer required for, such Category will be reallocated by the Bank to Category IV.

2. Amounts in Category IV shall be available for reallocation to meet increases in the estimated cost of items in Categories I-III to the extent that the amounts now allocated to such categories are insufficient to meet the portion of such costs to be financed from the Loan Account as agreed pursuant to Section 2.03 of the Loan Agreement. Such reallocation shall be made subject to agreement between the Borrower and the Bank.

## SCHEDULE 2

## AMORTIZATION SCHEDULE

<i>Date Payment Due</i>	<i>Payment of Principal (expressed in dollars)*</i>	<i>Date Payment Due</i>	<i>Payment of Principal (expressed in dollars)*</i>
May 15, 1973 .....	300,000	November 15, 1983 .....	585,000
November 15, 1973 .....	310,000	May 15, 1984 .....	605,000
May 15, 1974 .....	320,000	November 15, 1984 .....	620,000
November 15, 1974 .....	330,000	May 15, 1985 .....	645,000
May 15, 1975 .....	340,000	November 15, 1985 .....	665,000
November 15, 1975 .....	350,000	May 15, 1986 .....	685,000
May 15, 1976 .....	360,000	November 15, 1986 .....	705,000
November 15, 1976 .....	375,000	May 15, 1987 .....	730,000
May 15, 1977 .....	385,000	November 15, 1987 .....	755,000
November 15, 1977 .....	400,000	May 15, 1988 .....	780,000
May 15, 1978 .....	410,000	November 15, 1988 .....	805,000
November 15, 1978 .....	425,000	May 15, 1989 .....	830,000
May 15, 1979 .....	440,000	November 15, 1989 .....	855,000
November 15, 1979 .....	450,000	May 15, 1990 .....	885,000
May 15, 1980 .....	465,000	November 15, 1990 .....	915,000
November 15, 1980 .....	480,000	May 15, 1991 .....	945,000
May 15, 1981 .....	500,000	November 15, 1991 .....	975,000
November 15, 1981 .....	515,000	May 15, 1992 .....	1,005,000
May 15, 1982 .....	530,000	November 15, 1992 .....	1,040,000
November 15, 1982 .....	550,000	May 15, 1993 .....	1,075,000
May 15, 1983 .....	565,000	November 15, 1993 .....	1,095,000

\* To the extent that any part of the Loan is repayable in a currency other than dollars (see Loan Regulations, Section 3.03), the figures in this column represent dollar equivalents determined as for purposes of withdrawal.

## PREMIUMS ON PREPAYMENT AND REDEMPTION

The following percentages are specified as the premiums payable on repayment in advance of maturity of any part of the principal amount of the Loan pursuant to Section 2.05 (b) of the Loan Regulations or on the redemption of any Bond prior to its maturity pursuant to Section 6.16 of the Loan Regulations:

<i>Time of Prepayment or Redemption</i>	<i>Premium</i>
Not more than three years before maturity .....	1/2 %
More than three years but not more than six years before maturity .....	1 1/4 %
More than six years but not more than eleven years before maturity .....	2 1/4 %
More than eleven years but not more than sixteen years before maturity .....	3 3/4 %
More than sixteen years but not more than twenty-one years before maturity .....	5 %
More than twenty-one years but not more than twenty-three years before maturity .....	6 %
More than twenty-three years before maturity .....	6 1/2 %

## SCHEDULE 3

## DESCRIPTION OF PROJECT

The Project consists of the following:

**PART A. Highway Construction and Paving****1. Highway MG-4 or BR-381 (State of Minas Gerais)**

Construction of the 99 km section between Ipatinga and Governador Valadares, in accordance with Class I design standards, including all earthwork, drainage structures, bridges, and pavement. Execution will be the responsibility of the State Highway Department of Minas Gerais.

**2. Highway RS-13 or BR-386 (State of Rio Grande do Sul)**

Construction of the 54 km section between Tabai and Canoas, in accordance with Class I design standards, including all earthwork, drainage structures, bridges, and pavement. Execution will be the responsibility of the State Highway Department of Rio Grande do Sul.

**3. Highway BR-116 (State of Rio Grande do Sul)**

Improvement of the existing 12 km, paved two-lane section between São Leopoldo and Novo Hamburgo, including betterment of grade and alignment in rolling terrain, repaving, and widening or construction of drainage structures and bridges. Construction of two additional lanes in accordance with Class I design standards, including all earthwork, drainage structures, bridges, and pavement. Execution will be the responsibility of DNER.

**PART B. Highway Paving****1. Highway PR-5 or BR-476 (State of Parana)**

Pavement of the 85 km section between São Mateus do Sul and União da Vitoria, including improvement of the existing grade and alignment to Class I design standards, and construction of additional drainage works. Execution will be the responsibility of the State Highway Department of Parana.

**2. Highway BR-468 (State of Parana)**

Paving of the 43 km section from km 40 to km 83, between Curitiba and the State border, including improvement of the existing grade and alignment to Class I design standards, and construction of additional drainage works. Execution will be the responsibility of DNER.

**3. Highway SC-23 or BR-470 (State of Santa Catarina)**

Paving of the 91 km section between Rio do Sul and the junction with Highway BR-116, including improvement of the existing grade and alignment to Class II

design standards, and construction of additional drainage works. Execution will be the responsibility of the State Highway Department of Santa Catarina.

#### 4. Highway RS-4 (State of Rio Grande do Sul)

Paving of the 45 km section between Cai and Farroupilha, including improvement of the existing grade to Class I design standards, and construction of additional drainage works. Execution will be the responsibility of the State Highway Department of Rio Grande do Sul.

### PART C. Detailed Engineering and Supervision of Construction

1. Detailed engineering studies for the highways included in Part A and B above.
2. Supervision of the construction of the highways included in Parts A and B above.

### SCHEDULE 4

#### HIGHWAY DESIGN STANDARDS FOR NEW ROADS

		<i>Class of Highway</i>			
		<i>O</i>	<i>I</i>	<i>II</i>	<i>III</i>
Design Speed, km/h	flat	120	100	80	60
	rolling	100	80	60	40
	mountainous	80	60	40	30
Minimum Horizontal Radius, m	flat	570	380	230	130
	rolling	380	230	130	50
	mountainous	230	130	50	30
Maximum Grade, %	flat	3	3	3	4
	rolling	4	4.5	5	6
	mountainous	5	6	7	8
Sight Distance for Stopping, m	flat	210	150	110	75
	rolling	150	110	75	50
	mountainous	110	75	50	—
Sight Distance for Passing, m	flat	730	650	500	350
	rolling	650	500	350	175
	mountainous	500	350	175	—
Pavement Width, m	flat	7.50	7.20	7.00	7.00
	rolling	7.50	7.20	to	to
	mountainous	7.50	7.20	6.50	6.00
Shoulder Width, m	flat	3.50	3.00	2.50	2.00
	rolling	3.00	to	to	to:
	mountainous	2.50	2.50	2.00	1.20
	very mountainous	1.00	1.00	1.00	0.80
Right-of-Way, m	flat	—	60	30	30
	rolling	—	70	40	40
	mountainous	—	80	50	50

ADMISSIBLE HIGHWAY DESIGN STANDARDS FOR IMPROVEMENT  
OF EXISTING ROADS

		<i>Class of Highway</i>			
		<i>O</i>	<i>I</i>	<i>II</i>	<i>III</i>
Design Speed, km/h	flat	100	100	80	60
	rolling	80	80	60	40
	mountainous	60	60	40	30
Minimum Horizontal Radius, m	flat	430	340	200	110
	rolling	280	200	110	50
	mountainous	160	110	50	30
Maximum Grade, %	flat	3	3	3	4
	rolling	4	4.5	5	6
	mountainous	5	6.0	7	8
Sight Distance for Stopping, m	flat	150	150	100	75
	rolling	100	100	75	50
	mountainous	75	75	50	—
Sight Distance for Passing, m	flat	650	650	500	350
	rolling	500	500	350	175
	mountainous	350	350	175	—
Pavement Width, m	flat	7.50	7.00	7.00	7.00
	rolling	7.50	7.00	to	to
	mountainous	7.50	7.00	6.00	6.00
Shoulder Width, m	flat	3.00	2.50	2.00	1.50
	rolling	2.50	2.00	1.50	1.20
	mountainous	2.00	1.50	1.20	1.00
	very mountainous	1.50	1.00	1.00	0.80
Right-of-Way, m	flat	—	60	30	30
	rolling	—	70	40	40
	mountainous	—	80	50	50

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

LOAN REGULATIONS No. 3, DATED 15 FEBRUARY 1961,  
AS AMENDED 9 FEBRUARY 1967

REGULATIONS APPLICABLE TO LOANS MADE BY THE BANK TO MEMBER GOVERNMENTS

*[Not published herein, See United Nations, Treaty Series, vol. 615, p. 98].*