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ARGENTINA-PARAGUAY

**ENTIDAD BINACIONAL YACYRETA
YACYRETA HYDROELECTRIC PROJECT**

(RG0024)

LOAN PROPOSAL

NOVEMBER 1978

ARGENTINA - PARAGUAY

ENTIDAD BINACIONAL YACYRETA
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(AR-0042)

LOAN PROPOSAL

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Argentina

Datos Socioeconómicos Básicos

1. Datos Generales

Población total = 26.056 miles de habitantes (1977)
Tasa de crecimiento demográfico (1971-77) = 1,3%
Población rural = 16% (1977)

Extensión territorial = 2.776.889 Km²
Habitantes por Km² = 9,4
Habitantes por tierra arable = 15,6 por Km²

Producto interno bruto (millones de US\$ 1976) = 44.840,5 (1977)
Producto interno bruto por habitantes (US\$ de 1976) = 1.720,9 (1977)

Tasa de mortalidad general (1975-80) = 8,9 por mil habitantes
Tasa de mortalidad infantil (1970) = 60,8 por mil nacidos vivos
Expectativa de vidas al nacer (1975-80) = 69,4 años
Médicos por 10.000 habitantes (1969) = 1,9
Número de camas de hospital por cada mil habitantes (1969) = 5,6

Alfabetismo (1975) = 92,6%
Educación - número de alumnos (1975) (miles)

Universitarios	596,7
Secundarios	1.243,1
Primarios	3.805,5
Preprimarios	369,1
Parasistemática	436,6
Total	6.451,0

Tasa de cambio (julio 1978) = 805 \$a/US\$

Consumo de energía per cápita (1977) = 1,17 ton. equivalente de petróleo

Población económicamente activa por sectores (1970):

	<u>En miles</u>	<u>%</u>
<u>Total</u>	<u>9.011,5</u>	<u>100,0</u>
Agricultura y pesca	1.331,1	14,8
Minería	44,6	0,5
Manufactura	1.771,3	19,7
Electricidad, gas y agua	96,6	1,1
Construcción	711,3	7,9
Transporte y comunicaciones	593,3	4,4
Comercio, rests. y hoteles	1.324,8	14,7
Otros	3.138,5	34,8

Tasa de desempleo Gran Buenos Aires (1977) = 3%

2. Producto Interno Bruto por Gasto
(a precios de mercado)

	Composición (1/)			Tasa Real de Crecimiento Anual (2/)				
	1970	1973	1975	1973	1974	1975	1976	1977
PIB a precios de mercado	100,0	100,0	100,0	6,1	6,5	-1,3	-29	4,4
Inversión interna bruta	20,4	20,5	21,6	0,6	2,1	-7,2	-6,2	19,5
Consumo	79,1	76,6	81,0	6,9	10,1	2,5	-8,1	-4,1
Exportaciones	8,5	9,6	7,4	6,0	-0,3	-17,4	40,7	51,4
Importaciones	7,9	6,6	10,0	-1,8	20,9	3,4	-22,1	17,8
<u>Por Origen (a costo de factores)</u>	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>	<u>6,1</u>	<u>6,5</u>	<u>-1,3</u>	<u>-2,9</u>	<u>4,4</u>
Agricultura	13,1	15,0	12,9	16,8	5,9	-3,5	3,5	7,1
Minería	2,1	1,5	1,6	-3,2	2,2	-4,6	0,7	8,8
Manufactura	30,2	31,6	35,3	6,4	6,1	-2,8	-4,5	3,8
Construcción	5,8	4,9	4,3	-5,1	12,2	-9,6	-14,1	13,3
Transportes y Comunicaciones	10,1	10,0	8,3	6,7	4,4	-1,9	-4,3	5,8
Comercio	13,5	12,4	10,7	2,8	9,8	-1,3	-5,9	5,5
Gobierno y otros servicios	18,5	18,5	20,5	5,9	3,8	4,9	0,2	-0,4
Otros	6,7	6,1	5,9	-	-	-	-	-

3. Comercio Exterior

	(en millones de US\$ corrientes)					Tasas de Crecimiento Anual			
	1973	1974	1975	1976	1977	1974	1975	1976	1977
<u>Exportaciones de Bienes (FOB)</u>	<u>3.266</u>	<u>3.931</u>	<u>2.961</u>	<u>3.916</u>	<u>5.610</u>	<u>20,4</u>	<u>-24,7</u>	<u>32,3</u>	<u>43,3</u>
Tradicionales (agropecuarios)	2.510	2.920	2.174	2.836	4.204	16,3	-25,5	30,5	48,2
No tradicionales	756	1.011	787	1.080	1.406	33,7	-22,2	37,2	30,2
<u>Productos Principales</u>									
Cereales	864	1.339	1.067	1.175	1.563	55,0	-20,3	10,1	33,0
Aceites	118	184	88	155	332	55,9	-52,2	76,1	114,2
Azúcar	91	297	113	80	165	226,4	-62,0	-29,2	106,3
Carnes	790	440	288	523	664	-44,3	-34,5	81,6	27,0
Lana	182	101	104	125	203	-44,5	3,0	20,2	62,5
Frutas	50	101	111	124	154	102,0	9,9	11,7	24,2
Manufacturas	745	985	765	1.052	1.365	32,3	-22,3	37,5	29,8
Combustibles y lubricantes	5	12	14	19	21	140,0	16,7	35,7	10,5
<u>Importaciones de Bienes (CIF)</u>	<u>2.230</u>	<u>3.635</u>	<u>3.947</u>	<u>3.033</u>	<u>4.100</u>	<u>63,0</u>	<u>8,6</u>	<u>-23,2</u>	<u>35,2</u>
Productos de consumo	67	134	131	66	180	100,0	-2,2	-49,6	172,7
Productos intermedios	1.615	2.543	2.738	1.933	2.263	57,5	7,7	-29,4	17,1
Bienes y equipos de capital	380	432	562	503	1.060	13,7	30,1	-10,5	110,7
Combustibles	167	526	515	530	597	215,0	-2,1	2,9	12,6

1/ Precios corrientes.

2/ Precios constantes de 1960.

(en millones de dólares corrientes) *					
4. <u>Balanza de Pagos</u>	1973	1974	1975	1976*	1977*
I. <u>Transacciones Corrientes</u>	720,7	127,2	-1.284,6	650,1	1.316,9
Exportaciones (FOB)	3.266,0	3.930,7	2.961,3	3.916,1	5.610,0
Importaciones (CIF)	-2.229,5	-3.634,9	-3.946,5	-3.033,0	-4.100,0
Servicios	-326,5	-168,9	-304,0	-252,0	-224,4
Transferencias	10,7	0,3	4,6	18,5	31,3
II. <u>Transacciones de Capital</u>	-95,0	-97,9	178,3	-675,9	1.229,0
Mov. no compensat. (neto)	15,0	-53,7	191,1	-515,9	1.493,8
Mov. compensat. y otros (neto)	-110,0	-44,2	-12,8	-160,0	-264,8
III. <u>Errores y Omisiones</u>	-4,5	21,2	-1,0	-9,0	-331,6
IV. <u>Variación Res. Int. Netas</u>	621,2	50,5	-1.107,3	-34,8	2.214,3
V. <u>Reservas Internac. Netas</u>	536,7	587,2	-520,1	-554,9	1.659,4

En % del PIB									
5. <u>Finanzas Públicas</u>	<u>Gobierno Central</u> 1/				<u>Sector Público</u>				
	<u>1974</u>	<u>1975</u>	<u>1976</u> 2/	<u>1977</u> 3/	<u>1974</u>	<u>1975</u>	<u>1976</u> 2/	<u>1977</u> 3/	
Ingresos corrientes	15,8	12,4	15,0	13,1	30,3	24,8	29,7	29,1	
-de los cuales: impuestos	(14,4)	(11,0)	(12,6)	(11,2)	(19,6)	(14,1)	(17,2)	(17,4)	
Gastos corrientes	14,6	13,9	12,6	10,3	30,0	31,8	27,5	23,0	
Superávit (+)/Déficit(-) corriente	1,2	-1,5	2,4	2,8	0,3	-7,0	2,2	6,1	
Ingresos de capital	0,2	-	-	-	0,5	0,2	0,2	0,2	
Gasto de inversión	2,9	2,7	4,4	3,5	8,6	9,1	13,0	11,1	
- Inversión bruta fija	(2,1)	(2,2)	(3,6)	(2,6)	(7,5)	(8,4)	(11,6)	(9,8)	
Superávit/Déficit	-1,5	-4,2	-1,9	-0,7	-7,8	-15,9	-10,6	-4,8	
Transferencias(netas)	-4,9	-8,3	-6,5	-2,7	-	-	-	-	
Sup.(+)/Def.(-)menos Transfs.	-6,4	-12,5	-8,4	-3,5	-	-	-	-	
<u>Financiamiento</u>									
Financiamiento externo (neto)	-	-	-	-	0,8	0,1	0,6	1,5	
Financiamiento interno	-	-	-	-	7,0	15,8	10,0	3,3	
Préstamos (neto)	-	-	-	-	1,0	1,7	2,6	1,0	
Banco Central	-	-	-	-	3,5	10,2	5,3	2,3	
Otros	-	-	-	-	0,5	3,9	2,0		

1/ Comprende: Tesorería, Cuentas Especiales, Agencias Descentralizadas, Fondos de Energía y Seguridad Social.

2/ Presupuesto definitivo.

3/ Estimación con base al PIB calculado por el BID a fin de año.

* Provisional.

6. Destino de las Erogaciones del Gobierno Nacional (%) 1/

Función	1976	1977			1978		
		Corrientes	Capital	Total	Corrientes	Capital	Total
Administración General	15.5	8.1	0.5	8.6	8.9	0.6	9.5
Defensa	11.5	8.7	4.4	13.1	9.2	5.7	14.9
Seguridad	3.6	4.0	0.5	4.5	4.1	0.5	4.6
Salud	5.7	4.0	1.1	5.1	2.9	0.7	3.6
Cultura y Educación	7.0	7.7	0.8	8.5	7.7	1.1	8.8
Desarrollo Económico	36.1	18.5	17.3	35.8	20.0	15.1	35.1
- Agropecuario	0.9	0.9	0.1	1.0	-	-	-
- Energía y Combustible	8.8	3.4	4.7	8.1	-	-	-
- Minería	0.2	0.1	0.1	0.2	-	-	-
- Industria	3.7	2.7	2.5	5.2	-	-	-
- Turismo	0.1	0.1	-	0.1	-	-	-
- Transporte <u>2/</u>	15.7	7.3	8.1	15.4	-	-	-
- Comunicaciones	2.3	0.8	0.1	0.9	-	-	-
- Comercio y Almacenaje	1.3	1.0	0.5	1.5	-	-	-
- Otros	3.1	2.2	1.2	3.4	-	-	-
Bienestar Social	11.1	9.0	4.6	13.6	8.5	6.8	15.3
- Seguridad Social	4.0	5.5	0.1	5.6	-	-	-
- Vivienda	3.5	1.0	3.2	4.2	-	-	-
- Otros	3.6	2.5	1.3	3.8	-	-	-
Ciencia y Tecnología	1.4	1.3	0.6	1.9	1.5	0.6	2.1
Deuda Pública	9.5	6.9	7.4	14.3	7.0	3.3	10.3
Economías a Realizar	-1.4	-3.8	-1.6	-5.4	-3.0	-1.3	-4.3
TOTAL	100.0	64.3	35.7	100.0	66.8	33.2	100.0

1/ Incluye la Administración Central, Cuentas Especiales y Organismos Descentralizados.

2/ Incluye transporte ferroviario, vial, por agua y aéreo.

	Miles de Millones de Pesos al 31 de diciembre				Tasa de Crecimiento			
	1974	1975	1976	1977 2/	1974	1975	1976	1977
<u>Dinero y Crédito</u>								
Dinero (M1)	88,9	260,3	927,3	1.986,3	58,2	192,8	256,2	111,1
del PIB 1/	14,7	10,4	6,1	6,5	-	-	-	-
Dinero y Cuasidinero (M2)	148,6	337,9	1.458,1	4.810,4	55,3	127,4	331,5	222,2
del PIB 1/	24,8	15,3	8,7	12,7	-	-	-	-
Crédito Interno Total	170,2	472,0	1.654,7	5.468,0	61,0	177,3	250,5	233,3
Sector Público	48,2	166,8	280,7	660,0	73,4	246,1	68,3	131,1
Sector Privado	122,0	305,2	1.374,0	4.808,0	56,6	150,2	350,2	244,4
<u>Precios</u>	Variación Promedio Anual (%)				Variación 12 meses a Dic. %			
	1974	1975	1976	1977	1974	1975	1976	1977
Consumidor	24,2	182,8	444,0	176,0	40,1	335,0	347,5	161,1
por Mayor	20,0	172,5	499,0	149,4	36,1	348,2	356,2	141,1
Construcción	37,4	255,0	360,6	97,4	63,4	378,3	218,1	121,1
Deflactor del PIB	25,7	186,2	463,2	-	-	-	-	-
<u>Deuda Pública Externa</u>	Contratada al 31 de Dic. de cada año				Desembolsada Total			
	1973	1974	1975	1976	1977	1977		
			(en millones de US\$)			(%)		
Total por Tipo de Acreedor	3.505	4.776	4.977	6.219	6.978	70,1		
Acreedores privados	2.183	3.011	3.086	3.969	4.547	77,3		
- Proveedores	891	1.290	1.350	1.378	1.650	63,5		
- Bancos	778	1.054	987	1.773	2.123	82,6		
- Otros	514	667	749	818	774	92,3		
Organismos Internacionales	799	752	886	1.141	1.483	48,4		
Bilateral Oficial	524	1.013	1.004	1.109	949	69,2		

Relación entre el promedio geométrico de M1 y M2 y el PIB.
estimado.

9a. Deuda Pública Externa

Contratada al 31 de diciembre
1970 1975 1976 1977
 (%)

Por vencimiento	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>
1 a 5 años	58,0	57,2	61,3	62,9
6 a 10 años	22,9	25,7	21,3	23,2
11 años y más	19,1	17,1	17,4	13,9

<u>Servicio de la Deuda</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Servicio Total					
(en millones de US\$)	667	782	771	852	1.004
Serv./Exp. de Bienes y Servicios (%)	17,6	16,3	20,6	17,8	...

<u>Préstamos del BID aprobados hasta Dic./77</u>	<u>Millones de US\$</u>	<u>Composición %</u>
<u>Total</u>	<u>1.499,6</u>	<u>100,0</u>
Capital Ordinario	861,6	57,5
Capital Interregional	225,9	15,1
FOE	360,3	24,0
FFPS	43,5	2,9
Otros	8,3	0,5
<u>Por Sector</u>		
Agropecuaria y Pesca	332,7	22,2
Industria y Minería	404,1	26,9
Transportes y Comunicaciones	119,2	7,9
Energía	408,3	27,2
Saneamiento	128,3	8,6
Desarrollo Urbano	41,8	2,8
Educación	17,5	1,2
Financiamiento Exportación	43,3	2,9
Preinversión	4,3	0,3

PARAGUAY

Información Socioeconómica Básica

1. General

Población total (miles de habitantes, 1977)	2.813,0
Población rural %	62,1
Superficie (Km2)	406.752,0
Población por Km2	6,9
Proporción de población con tierras cultivables (Km2)	
Tasa de crecimiento demográfico (1970-77)	3,4
PIB por habitante in 1977 (measured in US\$ of 1976)	520,5
Indice de mortalidad (1970 por 1000)	8,9
Indice de mortalidad infantil (1970 por 1000 nacimientos vivos)	84,0
Médicos por 10.000 habitantes (1970)	4,58
Número de camas de hospital por 1000 habitantes (1970)	0,6
Indice de alfabetismo (1972)	79,8
Tasa de participación escolar (%) (Edad 7-14 años)	83,1
Tipo de cambio (por US\$)	126,0
Distribución de tierras	n.a.
0-9 hectáreas	
10-49 hectáreas	
50 y más	

Consumo de energía por habitante - Kwh (1975)	134,0
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Población económicamente activa por sectores (1975)

	<u>En miles</u>	<u>%</u>
Agricultura y ganadería	397,6	49,2
Minería	1,4	0,2
Manufactures	112,8	14,1
Construcción	38,0	4,7
Comercio, finanzas, seguros y bienes inmobiliarios	80,1	9,9
Servicios	150,5	18,6
Otros	27,2	3,3
	<u>807,6</u>	<u>100,0</u>
Tasa de desocupación (promedio 1975)		3,5
Tasa de desocupación		n.a.

Distribución ingreso familiar (1970):

Porcentaje de familias

5% superior
20% superior
80% superior

Porcentaje de ingreso

30
62
96

Compras Nacionales

Inversiones en el PIB
(a precios del mercado)

PIB a precios del mercado
Inversiones brutas internas
Consumo
Exportaciones
Importaciones

Composición (%) 1/

1970 1974 1977

100,0 100,0 100,0
14,7 20,1 29,4
86,5 80,7 81,8
14,9 15,5 21,0
-16,1 -17,2 -32,2

Tasa de incremento anual real (%) 2/

1971-73 1974 1975 1976 1977

5,8 8,3 5,0 7,5 13,9
19,1 10,2 22,8 24,6 32,6
3,9 11,2 3,6 4,1 11,6
3,5 0,0 -0,4 4,4 31,1
7,5 18,8 13,0 12,5 40,0

Por Origen (a precios del mercado)

Agricultura
Minería
Silvicultura
Manufactura
Construcción
Transportes y Comunicaciones
Comercio
Gobierno
Otros

100,0 100,0 100,0

17,8 19,6
9,2 14,2
4,4 5,1
16,7 18,1
2,8 3,2
3,9 3,7
24,4 23,7
5,3 3,1
15,5 9,3

5,8 8,3 5,0 7,5 13,9

6,6 11,2 2,3 5,9 13,0
2,2 6,0 4,0 5,2 4,0
7,4 10,3 10,4 0,1 9,2
3,9 8,9 -2,0 5,4 17,0
6,7 14,2 21,0 17,6 31,7
10,9 14,0 13,4 7,5 20,0
7,2 8,8 4,4 10,1 17,0
6,1 -3,4 16,7 6,7 10,0
5,5 5,5 8,8 4,8 14,5

Intercambio Externo

(En millones de US\$)

1970 1974 1975 1976 19773/ 19783/

Exportación de bienes (FOB)
Tradicional
No tradicional (semillas oleaginosas)

65,3 172,9 176,4 182,3 280,0 294,0
63,8 152,5 157,3 148,2 221,2
1,5 20,4 19,1 34,1 58,8

Productos principales:

Aserrín
Soya
Tabaco
Fibras de algodón
Carne elaborada

6,1 24,7 27,9 12,1 19,9
0,0 15,0 17,5 32,2 56,2
5,7 11,4 12,0 14,7 13,7
4,0 16,5 20,1 34,6 80,5
15,2 35,2 32,2 21,0 22,1

(Tasas de incremento anual)

1971-73 1974 1975 1976 19773/

25,2 36,1 2,0 3,3 53,6
22,0 32,6 2,4 -5,8 49,3
101,9 67,6 -6,4 78,5 72,4
25,0 109,3 13,0 -56,6 64,6
234,7 44,2 16,7 84,0 74,5
9,3 52,9 5,3 22,5 -6,8
42,0 42,9 21,8 72,1 132,6
38,0 -12,9 -8,5 -34,8 5,1

Importaciones de bienes (FOB)

Productos de consumo
Combustibles y lubricantes
Bienes de capital y equipo
Otros

76,6 198,2 227,3 236,3 285,0 342,0
12,8 25,7 27,0 29,0 32,3
6,2 23,1 38,4 37,9 42,6
29,9 70,7 83,8 81,0 126,1
27,7 78,7 78,1 88,3 84,1

11,7 55,6 14,7 4,0 20,6
-0,2 102,3 5,1 7,4 11,6
3,9 229,1 66,2 -1,3 12,4
28,0 12,2 18,5 -3,3 55,1
9,8 75,7 -0,8 13,1 -4,8

/ Precios corrientes.

/ Precios constantes de 1972.

/ Proyección.

Balanza de pagos

	(En millones de US\$)						Tasa de crecimiento (%)				
	1970	1974	1975	1976	1977 1/	1978 2/	1974	1975	1976	1977 1/	1978 2/
Exportaciones	65,3	173,0	176,4	182,3	280,0	294,0	36,1	2,0	3,3	53,6	5,0
Importaciones	-76,6	-198,2	-227,3	-236,3	-285,0	-342,0	62,1	14,7	4,0	20,6	20,0
Servicios	-10,3	-32,8	-52,7	-55,5	-76,8	-74,4	60,0	60,7	5,3	38,4	-3,1
Transferencias	5,1	3,9	14,0	4,2	5,3	5,5	259,9	-70,0	26,2	3,8	3,8
Saldo cuenta corriente	-16,4	-54,2	-89,6	-105,2	-76,5	-116,9	437,1	65,3	17,4	-27,3	52,8
Movimientos netos de capital	21,9	56,4	121,4	156,1	161,2	218,7	464,0	115,2	28,6	3,3	35,7
Capital privado	10,4	83,9	77,9	107,0	125,3	150,3					
- A largo plazo	(4,1)	(42,3)	(38,7)	(37,0)	(21,9)	(44,3)					
- A corto plazo	(6,3)	(40,9)	(-5,9)	(-6,7)	(-30,5)	(-30,0)					
- Binacional de Itaipú	(0,0)	(0,7)	(45,1)	(76,7)	(133,9)	(136,0)					
Capital oficial	14,7	10,5	42,0	53,9	44,8	72,7					
Otros ingresos de fondos (neto)	2,0	1,0	-2,7	3,9	-4,1	-4,3					
Error u omisión	-5,3	-2,1	4,2	-0,9	-4,8	0,0					
Cambio en las reservas netas internacionales	-5,5	-39,1	-31,8	-50,9	-84,7	-101,8	83,6	-18,6	60,1	66,4	20,2
(- equivale a aumento)											
Reservas netas internacionales	0,3	80,5	112,3	163,1	247,8	349,6	94,4	39,5	45,2	51,9	41,1

Finanzas públicas

	Z d e l P I B						Sector Público				
	Gobierno Central						1971-73	1974	1975	1976	1977
	1970	1974	1975	1976	1977 1/	1978 2/					
Ingreso corriente	11,7	9,7	9,4	9,0	9,8		12,4	10,4	10,4	12,4	
Egresos corrientes	9,8	7,2	7,6	7,5	7,3		10,2	7,2	7,5	9,0	
Ahorros en cuenta corriente	1,8	2,5	1,8	1,4	2,5		2,2	2,9	2,9	3,4	
Ingreso capital	0,0	0,0	0,0	0,0	0,0		0,9	0,4	0,7	1,4	
Egresos capital	2,0	1,7	2,2	3,1	3,2		4,7	3,8	7,5	7,1	
Inversiones brutas fijas	1,2	1,2	1,8	2,7	2,8		4,0	3,3	4,5	6,4	
Excedente (déficit)	-0,1	0,8	-0,4	-1,7	-0,7		-1,6	-0,4	-3,9	-2,3	
Financiamiento	0,1	-0,8	0,4	1,7	0,7		1,6	0,4	3,9	2,3	
Interno	-0,3	0,1	-0,3	0,0	-1,0		0,2	-1,1	3,8	0,1	
Externo	0,4	-0,9	0,7	1,7	1,7		1,4	1,5	0,1	2,4	

1/ Preliminar.

2/ Proyección.

5. Finanzas Públicas (Cont.)

Composición de los Egresos Totales de la Administración Central

	<u>1970</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1976</u>	<u>1978 1/</u>
1. <u>Presidencia</u>	<u>0,8</u>	<u>0,7</u>	<u>0,7</u>	<u>0,8</u>	<u>0,7</u>	<u>0,6</u>
2. <u>Ministerios</u>						
a. Interior	9,4	8,7	9,4	9,8	9,4	10,4
b. Hacienda	7,7	3,8	3,9	4,1	4,3	3,5
c. Educación	14,9	13,8	14,7	15,4	15,6	15,2
d. Agricultura y Ganadería	1,6	1,9	2,0	2,4	2,4	2,2
e. Obras Públicas	5,	6,5	8,6	8,6	8,2	8,5
f. Defensa Nacional	20,3	18,2	20,3	20,1	18,8	18,4
g. Salud Pública	3,6	2,8	2,7	3,0	2,8	3,0
h. Industria y Comercio	0,3	0,3	0,3	0,3	0,3	0,3
i. Otros ministerios 2/	<u>3,1</u>	<u>2,5</u>	<u>2,3</u>	<u>2,3</u>	<u>2,1</u>	<u>2,6</u>
Sub-total	66,2	58,5	64,2	66,0	63,9	64,1
3. <u>Otros Egresos 3/</u>	<u>33,0</u>	<u>40,8</u>	<u>35,1</u>	<u>33,2</u>	<u>35,4</u>	<u>35,3</u>
TOTAL	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>

Estructura Sectorial de las Inversiones Públicas 4/

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978 5/</u>
Agropecuario	20,0	18,3	14,5	14,5
Industria	6,7	5,7	7,3	7,8
Energía	19,5	11,4	9,3	9,5
Transporte y Comunicaciones	20,1	29,9	36,4	29,8
Educación	2,7	3,3	3,2	3,4
Salud	5,2	3,3	4,7	7,2
Vivienda	8,4	7,8	7,3	9,9
Comercio	12,3	13,2	11,2	11,3
Otros 6/	<u>5,1</u>	<u>7,1</u>	<u>6,1</u>	<u>6,6</u>
	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>	<u>100,0</u>

1/ Enero-Junio.

2/ Incluye Relaciones Exteriores, Justicia y Trabajo y Sin cartera.

3/ Incluye Deuda Pública, Poder Judicial, Cámara de Representantes y No especificados.

4/ Comprenden las inversiones físicas y financieras.

5/ Proyección

6/ Incluye inversiones en obras comunales e inversiones para servicios generales.

	(En millones de guaraníes al 31 de diciembre)						Tasa de incremento (%)			
	1970	1974	1975	1976	1977	1978 1/	1974	1975	1976	1977
tasas netas internacionales	44	10.140	14.144	20.552	33.953	48.799	94,2	40,0	45,0	65,2
autoridades monetarias	2.179	10.516	14.165	19.076	32.718	48.278				
comerciales	-2.135	-376	-21	1.473	1.235	521				
moneda interna neto	22.180	33.361	37.231	39.666	51.135	58.958	7,9	11,6	6,5	28,9
sector público	(5.668)	(6.532)	(6.999)	(6.383)	(6.286)	(7.928)	(-8,3)	(7,1)	(-8,8)	(-1,5)
sector privado	(14.465)	(24.683)	(29.225)	(34.403)	(42.478)	(48.771)	(14,9)	(18,4)	(17,7)	(23,4)
moneda (neto)	(2.047)	(2.416)	(1.007)	(-1.120)	(2.371)	(2.259)	(-6,1)	(-58,3)	(-211,2)	(211,7)
moneda circulante	7.912	16.935	19.947	23.752	33.938	45.972	24,7	17,8	19,1	42,9
del PIB)	(10,6)	(10,1)	(10,5)	(11,1)	(12,7)					
dinero	6.537	13.261	16.624	19.599	6.001	30.723	16,8	25,4	17,9	32,7
del PIB)	(8,7)	(7,9)	(8,7)	(9,2)	(9,7)					
precios y Salarios (tasa de aumento)										
índice PIB (1972 = 100)							24,2	7,4	5,0	9,7 3/
precios al consumidor							25,2	6,7	4,5	9,4
precios al por mayor							30,5	15,2	1,1	
índice salario de trabajadores										
años							18,3	5,3	10,0	
deuda pública externa pagadera										
deudas 3/		1971	1973	1974	1975	1976	1977	1978		
deuda total pendiente incluyendo parte										
desembolsar		156,1	216,3	306,9	369,0	385,8	532,3			
deuda pendiente parte desembolsada										
pendiente		(108,3)	(131,0)	(149,3)	(174,3)	(221,5)	(317,1)			
desembolsada como % del total		(69,4)	(60,6)	(48,6)	(47,2)	(57,4)	(59,6)			
tipos de acreedor (incluyendo parte										
desembolsada)										
crédito de Proveedores		34,8	28,3	41,5	37,4	35,2	51,4			
comerciales privados		0,5	18,7	43,8	43,1	43,8	107,4			
créditos internacionales		45,8	52,4	97,8	127,0	141,7	188,8			
(entre ellos el BID)		(7,4)	(5,2)	(15,8)	(31,6)	(41,0)	(50,8)			
créditos internacionales		74,8	116,8	123,6	161,3	165,0	184,7			

enero-junio 1978.
junio 1978 comparado con junio 1977.
IRF.

	Tasas promedio interés y vencimientos sobre compromisos de la deuda					
	1971	1973	1974	1975	1976	1977 1/
Total compromisos (en millones de US\$)	18,3	42,7	97,0	82,9	29,9	
Tasas interés promedio (%)	5,4	4,8	6,1	3,8	6,7	
Vencimiento promedio (años)	19,0	16,2	23,1	26,8	17,6	

Servicio de la deuda

Servicio total (en millones de US\$)	12,3	15,2	16,0	20,9	19,0	25,8
Servicios/Exportación de bienes y servicios (%)	12,7	8,6	6,7	7,9	9,1	7,5

9. Préstamos del BID
(aprobados hasta el 30 de junio de 1978)

	Millones de US\$	% Composición
<u>Total</u>	<u>261,5</u>	<u>100,0</u>
Capital ordinario	8,6	3,2
Capital interregional	43,1	16,5
FOE	196,9	75,3
FFPS	7,8	3,0
Otros fondos	5,1	2,0
<u>Por sector (%)</u>		
Agricultura	44,2	16,9
Industria	13,5	5,2
Transporte	39,0	14,9
Energía	122,8	47,0
Educación, ciencia y tecnología	1,5	0,5
Vivienda y desarrollo urbano	3,4	1,3
Salud y saneamiento	33,5	12,8
Preinversión	2,0	0,8
Turismo	1,6	0,6
Total	261,5	100,0

1/ Preliminar.

ARGENTINA
YACYRETA BINATIONAL AGENCY
YACYRETA HYDROELECTRIC PROJECT
LOAN PROPOSAL

I. THE PROJECT

1. Frame of Reference

The Yacyretá hydroelectric project is situated on the Paraná river, which is in the River Plate Basin, an area that encompasses parts of Argentina, Bolivia, Brazil and Uruguay, and all of Paraguay. The region is traversed by a system of international rivers which along parts of their courses are boundaries between countries. The total area is 3,200,000 km².

The enormous hydroelectric potential of the Paraná gives this river a special character. In its upper reaches the Itaipú dam is now under construction by Brazil and Paraguay. Further downstream a study is in progress on the possibility of a development between Argentina and Paraguay at Corpus, and after this there is the Yacyretá project, on the island of that name. The latter project first came under detailed consideration by Argentina and Paraguay in 1958, when a Mixed Technical Commission was established to perform joint studies for developing the hydraulic energy potential and improving the navigability of this stretch of the river. The final report was submitted to the two governments in 1964. The feasibility study was begun later, in 1971, and completed in 1973; it was the basis for the Treaty of Yacyretá, which was signed by Argentina and Paraguay on December 3, 1973.

This Treaty, in addition to stating the ground rules for execution of the project, makes it a condominium with freedom of navigation and indicates measures for improving it, and establishes the Entidad Binacional "Yacyretá" (Yacyretá Binational Agency - EBY). There are three annexes on the following subjects: (a) the EBY By-laws, (b) a general description of the installations for generating electric power and improving navigability, and (c) the basis for the financing of Yacyretá and for the performance of its services.

The Yacyretá hydroelectric project has great importance for the economies of Argentina and Paraguay. Indeed it will facilitate in Argentina the use of a renewable natural resource that will replace thermal generation and will also be the first least-cost-alternative project of the program for equipping the Argentine electric sector for the period 1985-94.

Furthermore, the demand projections prepared by the Secretariat of Energy of the Argentine Republic indicate that if the plant enters operation in the period 1985-90, as called for, it will be possible to supply the market satisfactorily and to continue with the program for equipping the sector.

It should be pointed out that the analysis of the project calls for the Argentine market to absorb all of the energy generated by Yacyretá. Thus, the sector analysis referred primarily to Argentina, stressing that Argentina has a high degree of electrification, in which the per capita consumption represented in 1977 approximately 1,000 kwh, placing Argentina among the top countries of Latin America in this respect. The annual growth rate in the period 1962-75 was 7.4%. In 1976 and 1977 the increase was 3.1% and 8.1% respectively.

As concerns Paraguay, the project constitutes another large work aimed at utilizing the great hydroelectric potential of the Paraná River, with benefits of great importance to the entire economy of the country, in the beginning through the construction and investments involved and later through the revenue from the sale of energy. Furthermore, since Paraguay will become the owner of 50% of the installed capacity of the plant, it will have cheap energy to meet its future demand. The Itaipú project has similar characteristics, with the consequent favorable impact on the economy.

The Economic and Social Development Plan for 1977-81 establishes that the basic objectives of electric power policy are to meet the needs of the market, promote the economic development of the nation through electric power, support the welfare of the population making it easier for a larger number of persons to have access to electric power, and to use preferably water resources for achieving those objectives. The plan indicates that Paraguay will continue to speed up the studies and the construction of the large binational hydroelectric works on the Paraná River, making detailed reference to Itaipú and Yacyretá.

In the particular case of Paraguay, the importance of the project also lies in the benefits to navigation, since Paraguay is a landlocked country and the Yacyretá dam will make it possible to eliminate critical passages for river transportation, including the construction of a lock compatible in its dimensions with the designs of the locks planned in the middle reaches of the Paraná.

Yacyretá, along with requesting the financial participation of the IDB in the project, indicated a similar interest in a World Bank loan. For this reason the analysis of this operation was performed by both banks, with the help of the IDB Field Offices in Argentina and Paraguay.

2. Objectives and Description

(a) Objectives

The principal purpose of the project is the construction of a hydroelectric power station with an installed capacity of 2,700 MW and producing 17,500 Gwh of energy, and it would also improve navigability along that stretch of the Paraná river and permit the irrigation of lands in Paraguay and Argentina. The project will also pave the way for the development of the area's touristic and recreational potential.

Attainment of the foregoing purposes will provide Argentina from a renewable natural resource, with the energy needed to meet the medium-term market demand. Indeed, it is assumed that that country would absorb the energy output, and hence will have to carry out a program of interconnection of the electric power regions into which the country is divided and allow the power station to deliver its output to the proposed consumption centers. Accordingly, it is being recommended that the Government of Argentina undertake to present to the Bank its interconnection plan and financing program before December 31, 1980.

(b) Description

The project will consist basically in the following works:

- (i) A generating station including a dam about 70 km long which with the principal structures will impound a reservoir of about 1,700 km², two reinforced concrete spillways with a designed discharge capacity of 95,000 m³/sec.; a covered, conventional powerhouse with a total capacity of 2,700 MW built on Yacyretá island; fishways; and two high-tension circuits for connecting the transformer yard to the switchyards from which the transmission lines start out;
- (ii) a navigation lock for the passage of vessels of up to 12 feet draft, with appropriate water intakes;
- (iii) irrigation structures on both river bank's; construction of the Aguapey dike to prevent the reservoir from encroaching on the creek of that name, and equipment for pumping the water into the main reservoir; permanent operators' villages; connecting and access roads, and a 1,500 m. long bridge joining the two banks of the river across the Aña-Cuá branch; and
- (iv) relocation works, including the construction of infrastructures to replace those to be flooded out by the reservoir (railways, ports, roads, potable water and sewerage facilities, and electric power and telephone installations) and the resettlement of about 33,000 persons, together with the associated programs for social welfare and the provision of community facilities and services.

3. The Borrower and Executing Agency

The borrower and executing agency would be the Entidad Binacional Yacyretá, created by the Treaty signed by the two governments on December 3, 1973. Article III of that Treaty endows Yacyretá with the juristic, financial and administrative capacity and vests it with the technical responsibility to study, design, direct and execute the proposed works and to start them up and operate them as a technical and economic unit.

In Side letter No. 21 of the same date as the Treaty, Argentina undertook to guarantee the loans to be granted to Yacyretá to pay for the goods and services required for construction of the project works. Hence, the possible loan to Yacyretá would enjoy the guarantee of Argentina. In addition, an Execution Agreement would be signed with the Governments of Argentina and Paraguay establishing the obligations of each of those countries to facilitate execution of the project. 1/

According to the Treaty the shareholders in EBY are the enterprises Agua y Energía Eléctrica (AyEE) of Argentina and the Administración Nacional de Electricidad (ANDE) of Paraguay. The capital is to be paid in by both institutions and will total US\$100 million in two equal parts.

The Entidad Binacional has a Board of Directors to establish corporate policy and rule on certain matters which are within its exclusive competence. It consists of 12 members, half representing Argentina and half Paraguay. Then there is the Executive Committee, also of 12 members and with the same national makeup. They are the directors in charge of the 6 areas into which the EBY is divided, each of which has a director and deputy director of different nationality. The Executive, Technical and Financial directors are Argentines and the Legal, Coordinating and Administrative directors are Paraguayans. According to Side Letter No. 24 of 3 December 1973, this distribution would continue until 1983.

A consulting firm has been retained to design the organization of Yacyretá and its proposal was accepted in general terms by the Entidad on September 5, 1978. This organization has been revised and is now regarded as satisfactory. However, it is deemed necessary that Yacyretá present to the Bank the final structure to be adopted for execution of the project, duly approved, prior to the first disbursement from the loan.

It may be noted in reference to technical supervision that Yacyretá has decided to continue employing the consulting consortium that performed the feasibility studies and designed the final project, to the financing of which the Bank would contribute. On this basis the Office of the Technical Director of EBY has a unit, the principal purpose of which will be to supervise the work of the consultants, who have been entrusted with the technical responsibility for execution of the project. In addition, individual experts will be available to advise Yacyretá in specific technical matters related to execution of the project.

The Office of the Financial Director has made the changes needed to adjust its operations to the execution stage, and further measures will have to be taken to set up an accounting system suited to the requirements of the project. To this end it is recommended that, within 12 months after the signing of the loan contract, the borrower present, to the Bank's satisfaction, a design for the structure and operation of the accounting system. If the Bank is not satisfied with this system, an independent consulting firm is

1/ For the possible World Bank loan the borrower would be Argentina, and a Project Agreement would be signed with the EBY and the governments of the participating countries.

to be retained to recommend measures for its improvement. Should the evaluation of that system show a need to improve it, the borrower will retain a first of independent consultants to propose measures for that purpose.

4. Terms and Conditions of the Loan

The financing, with resources from the Bank's ordinary capital, would total US\$210.0 million for covering costs in foreign exchange. Interest would be at 7.5% p.a. on the disbursed amount, and there would be a credit commission of 1-1/4% on the undisbursed balance; the amortization period would be 20 years, including a grace period of 6 years. The commission for inspection and supervision would be 1% of the total amount of the possible loan.

Moreover, Yacyretá has requested the Bank's participation with an amount of up to US\$210.0 million in complementary financing to meet foreign exchange requirements to be generated by execution of the project. Considering the magnitude of the resources needed and the 11-year execution period, the EBY deems it advisable to divide this financing into two "tranches", the first of which would be negotiated during 1979 and the second two or three years later. The negotiations with commercial banks for the first tranche in 1979 would be conducted by the Bank, which would submit the usual proposed resolution on it to the Board of Executive Directors for consideration. For the second tranche the Board of Executive Directors of the Bank would be advised in advance, in a short procedure, of the amount requested by Yacyretá and of when the Management proposes to enter the capital market to obtain it.

The World Bank loan would be for US\$210.0 million, presumably at interest of 8.0% and with a credit commission of 0.75%. The amortization period would be 15 years, including a 6-year grace period.

II. COST AND FINANCING

1. Cost by Investment Category

The total investment outlay entailed by the project is estimated at the equivalent of US\$5,579.1 million, distributed among the following investment headings:

FINANCING SCHEME

(Equivalent in US\$ thousands)

	Foreign Exchange						Local Currency						
	IDB	IBRD	Export Credit	Foreign Loans	Funds	Internal Generation	Sub- total	Cap- ital	Local Banks	Foreign Loans	Funds	Sub- total	To
ENGINEERING AND ADMINISTRATION													
Engineering and Management	23.2	23.3	-	1.2	5.3	-	53.0	-	8.9	-	70.6	79.5	13
Administration and General Expenses	-	-	-	-	-	-	-	49.2	40.8	-	-	90.0	9
al Heading 1	23.2	23.3	-	1.2	5.3	-	53.0	49.2	49.7	-	70.6	169.5	22
ELECT CONSTRUCTION COSTS													
Preliminary works	-	-	-	-	-	-	-	0.4	-	13.5	89.4	103.3	10
Civil works	106.1	107.9	193.6	95.0	97.5	-	600.1	-	216.0	170.4	209.2	595.6	1,19
Operation equipment	-	-	232.4	-	-	-	232.4	-	-	2.9	9.9	12.8	24
Electromechanical equip- ment	-	-	126.5	-	2.8	-	129.3	-	-	18.1	52.9	71.0	20
Contingencies	-	-	-	-	-	-	-	-	-	33.2	33.2	66.4	6
Locations	-	-	-	-	-	-	-	-	-	18.2	154.5	172.7	17
al Heading 2	106.1	107.9	552.5	95.0	100.3	-	961.8	0.4	216.0	256.3	549.1	1,021.8	1,98
FINANCIAL EXPENSES													
Internal credit	2.1	-	-	403.5	508.1	17.3	931.0	-	-	-	-	-	93
External credit	-	-	-	-	-	-	-	-	-	-	1,250.5 ^{1/}	1,250.5 ^{1/}	1,25
al Heading 3	2.1	-	-	403.5	508.1	17.3	931.0	-	-	-	1,250.5	1,250.5	2,18
UNASSIGNED EXPENSES													
General contingencies	18.3	18.8	49.4	-	12.0	-	98.5	-	-	43.3	82.2	125.5	22
Contingency allowance	60.3	60.0	227.6	-	58.0	-	405.9	0.4	34.3	130.2	396.7	561.6	96
al Heading 4	78.6	78.8	277.0	-	70.0	-	504.4	0.4	34.3	173.5	478.9	687.1	1,19
TOTAL	210.0	210.0	829.5	499.7	683.7	17.3	2,450.2	50.0	300.0	429.8	2,349.1	3,128.9	5,57
Percentages	3.8	3.8	14.9	8.9	12.3	0.3	44.0	0.9	5.3	7.7	42.1	56.0	10

Of this amount, US\$1,123.1 million is deferred interest owed to the Funds, and hence does not constitute a financial requirement during the construction period.

2. Financing Plan

It has been provided that the project is to be financed with contributions from the IDB, the IBRD, the international capital market, the Argentine electric power funds and local commercial banks, and with export credits, funds generated internally by Yacyretá itself, and the enterprise's internal capital.

It has to be mentioned that the financial resources provided for the period of execution of the project, which runs from 1978 to 1990, exceed the amount stated as the total investment outlay because it is assumed that the debt will begin to be serviced in part in 1983, and Yacyretá's financial responsibility has been defined as covering all additional investments required for relocations over and beyond so-called "functional replacement" which covers construction of the works to be relocated at their value when new. Thus, even though a sizable portion of the interest accruing on the contribution from the Funds of the Argentine electric power sector is deferred till after 1987 (US\$1,123.1 million), a total of US\$7,051.1 million is needed to cover all financial requirements during the period 1978-90 mentioned above.

Of the above-mentioned sources, the two development Banks would each contribute US\$210.0 million from their own resources; the export credits for financing electromechanical equipment and construction would come to US\$829.5 million; the additional external loans would total US\$943.5 million, of which US\$15.0 was obtained in 1978; the Argentine electricity sector funds would put up US\$2,623.8 million, of which US\$1,909.7 million would be for investment and US\$714.1 million to meet additional financial requirements; the power station itself would provide US\$1,884.3 million in internal cash generation from 1985 to 1990, and the Paraguayan contribution of US\$50.0 million would constitute the capital of Yacyretá. Agua y Energía Eléctrica has already made good its contribution.

The local contribution from the Chocón-Cerros Colorados Fund and the Fondo Nacional de Grandes Obras would consist of loans that the Government of Argentina would make to EBY by transferring to it all surpluses required by Yacyretá that remain after covering the investments scheduled for the period 1978-1985 and whatever is necessary for subsequent years up to 1990. To this end a financial analysis has been made of the sector from which were drawn the conclusion on the financial assumptions that must be realized for the contribution from this source to be forthcoming. In addition, it has been recommended that, in the event of any shortfalls in the amounts received from these funds, the guarantor undertake to provide or facilitate the obtaining of additional credits required, on terms and conditions compatible with the financing plan envisaged.

As indicated above, Yacyretá expects to have the financial participation of the World Bank for an amount of US\$210 million. For this reason a recommendation has been included as a condition precedent to the first disbursement by means of which the World Bank will be required to have declared that its loan to the Argentine Republic has entered into effect.

In addition, if Yacyretá elects to use the complementary financing mechanism of the Bank, it must so indicate through a letter prior to the first disbursement from the proposed IDB loan.

With regard to the other external loans from commercial institutions, it will also be necessary to present, prior to the first disbursement and to the satisfaction of the Bank, the contracts signed for the financing of the investments in 1979 and evidence that the other resources will be available for the procurement that would be financed from this source in 1980 and 1981.

A similar requirement has been established regarding the export credits currently being negotiated by Yacyretá with the various countries exporting electromechanical equipment and construction machinery required for the project.

In regard to the provision of evidence of availability of sufficient external resources to cover the financial requirements expected in each calendar year, it is recommended that the borrower present such information to the Bank within the first 60 days of each year.

Included among the sources are loans from commercial banks of Argentina that would be used starting in 1981. To this end, the borrower should submit, to the satisfaction of the Bank, evidence that the financial agencies concerned will grant those credits in amounts sufficient to meet the requirements stated in the financing plan for this source in the year of 1981.

Moreover, in consideration of how the Funds are replenished, recommendations have been included on the profitability of the largest companies in Argentina and on the obligations of the guarantor in relation to fulfillment of the investment programs on which the financial analysis has been based.

3. Use of the Loan Proceeds

The proceeds of the loan would be used to cover expenses in foreign exchange in connection with the principal contract for civil works, the contract for project engineering and management and the contracts with the individual experts referred to above, and also the allowances for contingencies and price escalation and the charge for inspection and supervision. The World Bank resources would be used for the same purposes, pari passu with those of the IDB.

4. Recognition of Expenditures

It is expected that, in accordance with the relevant policies, Yacyretá will have incurred prior expenses under the project amounting to about US\$155.0 million, of which about US\$3.0 million would be disbursements made against the

possible IDB loan under the heading of Engineering and Administration. The remaining US\$152.0 million is expenses under the various headings that would be covered by the local contribution. It is recommended accordingly that these amounts be recognized and charged against the local counterpart contribution and the possible loan, respectively.

III. EXECUTION OF THE PROJECT

1. Technical Aspects

Preparation of the designs and technical specifications for the power generation plant is practically complete. Yacyretá expects to approve the bidding specifications in the last two months of 1978, which will pave the way for issuance of the invitations to bid for the principal civil works contract. Draft designs for the relocation of infrastructures and public services are well advanced, and some topographical, geological and geotechnical studies remain to be made and incorporated into the bidding documents.

It may be mentioned that the design for execution of the infrastructural works and services was carried out with the approval of the technical units of the national agencies of Argentina and Paraguay, with which close working contacts were maintained.

The engineering supervision, as previously mentioned, will be essentially the responsibility of the consulting consortium. The Office of the Technical Director of the EBY will be responsible for superintending the work of those consultants and will be supported in this function by units in the Offices of the Juridical, Financial and Administrative Directors.

Responsibility for the relocation works rests with the Office of the Director of Coordination, which has adopted a scheme for supervision similar to that used for the power station, with a Works Superintendent placed over several areas of execution in each country.

In keeping with the foregoing, it is regarded as necessary that Yacyretá present to the Bank, prior to the first disbursement, the contract signed with the consulting consortium for provision of the engineering services for the project. In addition, it is deemed advisable that the EBY obtain the commitment of the services of individual consultants in different disciplines to advise it on specific technical aspects during execution of the project.

According to the execution timetable, the principal civil works contract would be awarded in December 1979, and most of the investments would be completed in 1985. Orders for the principal electromechanical equipment would be placed in the first half of 1980, and installation of the generating units would begin in early 1984.

2. Resettlement of the Affected Population

The EBY has been made responsible for resettlement of the affected population, and has carried out many studies of how to go about this. Since 1975 alternatives and programs have been under consideration for the resettlement of about 33,000 persons in both countries, about 44% of them in Paraguay and 56% in Argentina. These studies have provided detailed socioeconomic and occupational information on the affected population. In 1977 and 1978 headway was made on preliminary drafts of urban designs and in the conduct of surveys that are providing a clear understanding of the various social, cultural and economic strata and of the expectations of the population, and of censuses to provide more precise information on family composition, income and the condition of affected property.

The policies approved by the Entity on resettlement state that the financial responsibility for whatever must be built under the heading of functional replacement of works falls exclusively on Yacyretá, but it has also been determined that the additional cost for improvements will be covered by the entity. It has also been assumed that the execution of the plan will be carried out by Yacyretá with the help of the pertinent national institutions whenever regarded as necessary.

Resettlement of the population has been classified by the Entity under two major headings: (a) urban and semiurban resettlement, and (b) rural resettlement. In the first case all the families that live in a home which they own, rent or simply occupy, have the right to have another home built for them. However, if the party affected does not wish to be relocated, the Entity will pay the pertinent compensation.

Regarding the resettlement of the rural population, the owner could be compensated, but also any agriculture and livestock producer directly using a farm affected by the dam will have the right to receive another property which constitutes an "economic operating unit".

However, since there must be a comprehensive plan for the measures to be taken and for the programs on social matters that must complement implementation of the policies approved by Yacyretá, it is recommended that, prior to the signing of the loan contract, there be presented, to the Bank's satisfaction, the plan for resettlement of the urban, semiurban and rural population to be affected by execution of the project, and for hiring of the heads of the planning and administration units of the plan, and the professional personnel for the rural resettlement and social welfare programs. Quarterly progress reports on the execution of the plan must also be presented.

3. Financial Aspects

As stated previously in connection with the Financing Plan, there will be a local contribution provided chiefly from the Argentine electricity sector funds and Yacyretá's own internal cash generation which, joined to the amounts put up by local banks and Yacyretá's own capital, account for about 69% of the total financial requirements for the project during the period 1978-90, with the external sources providing the remaining 31%.

Because of the low level of the local resources to be available during the period 1980-84, part of the investment in local currency will need to be financed with external resources. In 1985 the funds begin to yield surpluses and Yacyretá begins to generate power, and the external debt can begin to be serviced from these sources. In any case, this situation only arises if the financial terms and conditions of the loans from the Funds are such that payment of the interest on them can be deferred till after 1987 and the payments of principal be initiated when the service on the external debt permits and without affecting the reasonable rate level, which is established to cover all the financial obligations of the current year.

The auditing of Yacyretá is on three levels: internal, by the stockholders, and external. The Auditing Manual has been reviewed and found satisfactory, and the internal auditing unit reports directly to the Executive Director.

Yacyretá is also audited by its stockholders - ANDE and AyEE. Moreover, the Statutes and the Internal Operating Procedures require external auditing of the financial statements. In view of the foregoing, it is recommended that a firm of independent public auditors acceptable to the Bank be selected and retained to perform the annual auditing in accordance with the Bank's procedures during the life of the contract.

According to the Treaty, the components of the annual cost of electric service provided by Yacyretá are: (i) dividends to stockholders, (ii) the service on the debt, (iii) the reimbursement to ANDE and AyEE of their costs in connection with the project, (iv) operating expenses, and (v) the operating surpluses or deficits of previous years. Thus, the purpose of Yacyretá is to sell its energy at cost, at rates that will yield it the income needed to cover the aforesaid generating costs. This diminishes considerably the significance of a return on the investment, and the return increases every year as the amounts to be covered by the cost of the service grow smaller with the reduction of the base because of depreciation.

As a result of this rate structure the basic aim is to achieve a balanced flow of funds, that is, to reach the cash break-even point. Therefore, the operating results of the dam assume secondary importance owing to the impact of the financing charges on the debt level required to finance the project.

In view of the foregoing, it is recommended that Yacyretá present to the Bank the timetable for applying the rate schedule envisaged in the Treaty of Yacyretá.

4. Institutional Aspects

The organization of the EBY is regarded as satisfactory for the present state of development of the project. However, the organization to be adopted, in the terms set forth in Chapter I, Section 4 of this document, will have to be submitted to the Bank. Similarly, the EBY's accounting system will have to be strengthened in the manner described in that same section.

From the standpoint of the electric energy sector of Argentina it is regarded as necessary that the measures taken by the Government to institutionalize the capital equipment planning and financial programming activities be presented to the Bank prior to December 31, 1979. The studies on these aspects were done with financial support from the World Bank, which is expected to continue its contribution by granting the loan it is considering for the Yacyretá project.

Furthermore, The Secretariat of Energy has approved an institutional framework for coordinating the studies, projects and works of the National Transmission System that will be executed by AyEE and HIDRONOR, S.A. within the deadlines and priorities established for the national planning of the sector. AyEE, in turn, in its area of competence, has created a group to study and implement the National Interconnection Network which is directly related to the subsequent execution of the transmission system associated with Yacyretá and with the justification of the market assigned to the project.

5. Juridical Aspects

Since much of the project must be carried out in Paraguayan territory and the borrower will be the Entidad Binacional, it is regarded as necessary that a project Execution Agreement be signed with the participating governments in addition to the previously mentioned loan contracts and the guarantee contract with the Argentine Republic. This agreement would establish the obligations of each country in order to facilitate execution of the project in conformity with the provisions of the Treaty of Yacyretá.

In regard to the Bidding Regulations agreed upon with the EBY, it may be noted that the internal regulations of that enterprise establish that public bidding procedures shall be required for all procurements to a value in excess of US\$500,000. Since the Bank's policy is that such procedures shall be required on all acquisitions to a value of at least US\$100,000, Yacyretá has requested that this floor be raised to US\$500,000 to achieve equivalence between its own internal provisions and those of the Bank. The additional justification requested by the IDB for this request has not been forthcoming, however, and hence no recommendation is made to this effect.

As provided for in the treaty, various definitions must be adopted relative to the execution of the project. For this reason recommendations have been included for the borrower and the countries establishing deadlines within which those definitions must be submitted for consideration by the Bank. As stated in Article VI, Argentina and Paraguay must proceed to mark off the limits in the area of the project. A condition precedent to the first disbursement is that the measures adopted be presented to the Bank and that the demarcation be completed six months before proceeding to the diversion of the river from its natural course.

In regard to the navigation lock, Article VII states that the High Contracting Parties will assume joint and equal responsibility for administration and operation. Therefore the agreement that is adopted must be submitted to the Bank six months before the lock goes into service.

In regard to the demarcation of the area to be declared of public utility, the area that would be affected by the project has been presented to the governments in accordance with Article XVII of the Treaty. Therefore, the demarcation should be submitted to the Bank within one year from the signing of the loan contract.

Article XVIII of the Treaty also mentions a number of matters that must be resolved by additional protocols or unilateral acts of the governments. To this end, it is recommended that the measures which have been taken by the countries to implement that article to the extent necessary for the execution of the project, be presented to the Bank within 12 months after the date of signature of the loan contract.

It should be pointed out that up to now there are three protocols in effect (Labor and Social Security, Transit of Automotive Vehicles, and Transportation of Materials, Equipment and Machinery) and several other protocols are in the stage of being prepared, as well as side letters to be signed by the governments to fulfill the provision cited above.

A recommendation has also been included to the effect that before each invitation to bid evidence be submitted to the Bank, in the case of construction, that the land necessary for carrying out the work is within the demarcated areas, and that before the award is made such land is owned or can be immediately taken. This is justified because, given the size of the jobs, a long period of time may elapse between the invitation to bid and the award. A case in point is the main civil works contract, which would cover an estimated period of 270 days.

In regard to the procurement procedures agreed upon with Yacyretá, public international bidding would be used for any contracts or awards to be financed in whole or in part with funds from the loan, and a procedure acceptable to the Bank will be used in all other cases. It should be pointed out, however, that the Internal Regulations of Yacyretá provide for public bidding in all cases in which procurement is in amounts exceeding the equivalent of US\$500,000.

IV. JUSTIFICATION OF THE PROJECT

1. Technical Feasibility

The project was designed in accordance with detailed studies performed at the various engineering stages, which sought a combination of economic operation and operational safety. The engineering services at the prefeasibility, feasibility and project levels were provided by a consortium of consultants of proven, extensive experience in this field, who in turn consulted local firms in Argentina and Paraguay. These consultants will also have charge of the engineering in the phase of preparing detailed plans and supervising the execution of the works. In addition, Yacyretá has built into the Office of the

Technical Director an adequate unit with the basic purpose of supervising and working with the consultant, who bears ultimate responsibility for fulfillment of the technical requirements of the execution contracts.

The cost estimates were made initially by the consultants mentioned in the foregoing paragraph, and in late 1977 a consulting firm specializing in the subject was retained and presented a revised, updated budget which, adjusted for the differences in price levels (those of July 1976 were updated to December 1977), showed a difference of 3% between the two budgets.

Execution of the relocation works has reached the preliminary draft stage, on the whole, and is proceeding well in terms of the execution times provided for the project, which calls for filling the reservoir toward the end of 1984.

Based on the foregoing, it is considered that the design of the project is technically sound, that its costs have been carefully worked out and revised, and that the execution times are reasonable.

2. Economic Justification

The project has been analyzed on the basis of electric energy consumption in Argentina compared with a calculation of the generation capacity of the power stations in being and those called for in the National Electric Power Capital Equipment Plan for 1977-1985. This comparison shows that putting the Yacyretá Hydroelectric Power Station into operation in 1985 is justified chiefly in terms of energy because, if it did not go on stream in that year, thermal generation would have to be stepped up at a high operating cost, and some obsolete units would have to be kept in operation.

Moreover, Yacyretá is the first project in the sequence of capital equipment determined optimal according to the model for selection of the least-cost program, assuming it goes on stream in 1985, as previously stated. In addition, the alternative chosen is justified by the fact that the installations proposed can meet the demand when river flow in the basin is at a critically low level, and yields adequate service reliability and a reasonable reserve margin.

It has to be borne in mind, however, that the Center-Cuyo, Center-Northeast and Littoral-Northeast regions must be interconnected before 1985, and it is recommended that the guarantor present to the Bank, prior to December 31, 1980, the organization and plans for the execution and financing of this interconnection operation.

In the event that Paraguay does not share in the power generated by Yacyretá, the country will receive from the operation of the power station net annual income on the order of US\$32 million at prices of December 1977, which is equivalent to about 12% of the country's total exports in 1977.

It is also necessary to point out that the Yacyretá hydroelectric project is a multi-purpose undertaking whose direct benefits include, apart from the generation of electric power, the improvement of navigation along the Paraná River,

agricultural development through irrigation, tourism and fishing. In addition, this joint effort of the two countries to develop renewable natural resources constitutes an important initiative in the process of physical integration of the area, an initiative that will lead to the creation of a development pole with beneficial effects for both countries.

It is also necessary to mention in regard to navigation that the construction of Yacyretá will eliminate danger spots in the stretch of the river between Ituzaingó and Posadas and, together with construction of the navigation lock, will make the river an effective communication route that will contribute to the economic development of southeastern Paraguay and the provinces of Misiones and Corrientes in Argentina.

When the reservoir is filled the inhabitants of the land so flooded - about 33,000 persons - will have to be resettled, chiefly to the towns of Posadas in Argentina and Encarnación in Paraguay. The policy rules adopted by Yacyretá are deemed adequate for they take account of the socioeconomic status of that population and of the features of land tenure in the area. This policy will make it easier for the lower-income groups to reestablish themselves and give them access to urban housing that meets minimum standards of habitability or to rural tracts that are economically viable farms.

Moreover, the ecological and environmental effects have been a constant concern of the Entidad. The dam will include facilities for the passage of fish of widely varying behavior and swimming speeds and depths. It is also being contemplated to move the wildlife of the area to a natural preserve, and to provide a program for clearing the vegetation from the land to be flooded so as to avoid the injurious effects of decomposition.

3. Financial Feasibility

From the administrative and financial standpoint Yacyretá has an adequate organization, staff and accounting system for the current level of its activities. Recommendations have been made to assure the Bank that the borrower will take the necessary steps to make the changes required to prepare for the construction and commercial operation of the power station and navigation lock. It is also necessary to work out the policy on insurance at the various stages.

It is considered that the financial resources identified for execution of the project will be available, in view of the interest evinced by equipment exporting countries, international commercial banking, the availability of resources from the Funds indicated by the financial analysis, and the recommendations that the guarantor be required to undertake to provide the additional resources required.

As for the electric energy sector in Argentina, it is considered that the recommendations made for maintaining a minimum profitability in the principal electric power enterprises of the country will contribute to improve the financial situation of the sector and optimize the use of the resources generated internally and obtained from foreign sources. It is also deemed necessary that the required institutionalization measures be adopted so as to sustain an adequate capital equipment planning and financial programming.

Though the transmission system associated with Yacyretá is not part of the project, it is essential for delivery of the power to be generated by the power station, and recommendations have been provided to ensure that the lines are built in due course.

V. SPECIAL ASPECTS

1. Rates

As stated earlier, Annex C of the Treaty of Yacyretá establishes the basis for the financing of the Entidad and for its operation as a supplier of electricity, and provides that its energy is to be sold at rates that will yield the funds needed to cover its costs during the year in which they are charged.

The most important of these costs is the service on the debt, for application of the method prescribed in the Treaty could generate considerable fluctuations in the EBY rate levels over time if the payments of principal and interest were concentrated in a given period. This situation could, in turn, adversely affect current rate levels in Argentina through the impact of the purchase of the 17,500 Gwh by the unified dispatch center (DUC) for sale to final consumers.

To avert this situation, the financial projections assume for 1990 a rate that is compatible with the average DUC rate and holds unchanged from 1985 through 1995. The return on the investment in 1990 would be 8%. However, attaining these objectives will demand careful management of the debt service and postponement of the payments of principal and interest to the Funds of the Argentine electric power sector and of balances due to the AyEE on the advances on capital account made by it up to 1977. Similarly, steps will have to be taken to prevent the payment of dividends on subscribed capital during the period between start-up of the first unit and attainment of generation at capacity, from becoming yet another influence to disturb the reasonable rate level.

The foregoing analysis was made jointly with the World Bank, and it is considered that the rate clause of the contracts should be suited to the characteristics of the project and of the Entidad Binacional.

2. Financing Plan

The long execution period and the financing of almost the entire investment through loans is a special circumstance of the project, in the sense that the amount of resources needed in the execution period is substantially greater than the investment cost thereof. Indeed, the total cost is the equivalent of US\$5,579.1 million, including US\$1,123.1 million in interest the payment of which would be deferred until after completion of the project, whereas the cash resources needed come to the equivalent of US\$7,051.1 million. This situation stems primarily from the fact that the service of the debt will begin during the years 1983-1990 and that this figure includes the additional resources pertaining to the portion of the relocation costs not included in the investment cost of the project.

Taking into account the situation described above, the financing plan is based on US\$7,051.1 million and the commitment assumed by the guarantor is based on this total amount, excluding the interest on the funds of the Argentine sector the payment of which has been deferred.

3. Contrating of Consultants to Oversee the Construction Work

The IDB and IBRD would jointly finance the foreign exchange costs of the contract for the services of engineers to prepare the detailed plans and supervise construction. Yacyretá proposes to continue employing the consulting firm that performed the feasibility study and designed the working project, which is regarded as adequate.

In October 1978 the Entidad completed its negotiations with the consulting consortium and forwarded the draft contract to the Banks for their opinion. No objections were presented by them.

4. Financing of the Electric Energy Sector in Argentina

In view of the fact that sound operation of the principal enterprises in the Argentine electric energy sector is vital to the financing of Yacyretá, it is considered necessary that the guarantor take suitable measures to assure a minimum profitability of the four most important of those enterprises, in addition to which a revaluation of their fixed assets is required in 1981 and 1982, and yearly from 1983 onwards, so that a realistic rate base may be established.

In addition, recommendations have been made for institutionalization of the capital equipment planning and financial programming activities for the Argentine electric energy sector. This would make an important contribution to the adoption of investment decisions best suited to the country's needs.

5. Transmission System

The start-up of the Yacyretá power station will greatly augment the supply of electric power to different electric regions in Argentina. Hence a recommendation has been included that before 1985 some inter-regional connections be effected which are needed to reach the consumption centers to which the energy output of the project is to be delivered.

The Bank has also requested presentation of the financial scheme for the investments to be made for construction of the transmission lines associated with Yacyretá, particularly since the financial projections of the AyEE envisage a possible loan from the Bank.

PROPOSED RESOLUTION

REGIONAL. LOAN /OC-RG TO THE ENTIDAD BINACIONAL YACYRETA
(Yacyretá Hydroelectric Project)

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Entidad Binacional Yacyretá, as borrower, and the Argentine Republic, as guarantor, for the purpose of granting the former financing to cooperate in the execution of the Yacyretá Hydroelectric Project. This financing shall be subject substantially to the following conditions:

1. Amount and Currencies: Up to US\$210,000,000, or the equivalent in other currencies, except those of Paraguay and Argentina, which are part of the ordinary capital resources of the Bank, to pay for goods and services acquired through international competition in the member countries of the Bank and for such other purposes as may be specified in the loan contract. Payments of amortization and interest shall be made in the currencies disbursed.
2. Source of Funds: The ordinary capital resources of the Bank.
3. Guarantee: Joint and several guarantee of the Argentine Republic.
4. Credit Fee: 1-1/4% per annum on the undisbursed portion of the financing, commencing to accrue 60 days after the date of the contract and payable in dollars of the United States of America on the same dates as the interest.
5. Amortization: The borrower shall amortize the loan in a period of 20 years after the date of the contract by means of consecutive, semiannual and, so far as possible, equal installments. The first installment shall be paid 6 months after the date scheduled for the last disbursement of the financing.

6. Interest: 7-1/2% per annum (including the 1% special commission of the Bank), payable semiannually on principal amounts outstanding. The first payment shall be made 6 months after the date of the contract.
7. Disbursement: Total disbursement of the financing shall be made within a period of 6 years after the effective date of the contract.
8. Special Conditions:
 - (a) The resources of the loan shall be utilized in their entirety by the borrower. If modifications which, in the opinion of the Bank, may substantially affect the project, are made to the legal provisions or the basic regulations concerning the borrower or in the Treaty of Yacyretá or any of its side letters, the Bank may take such measures as it deems appropriate, in accordance with provisions to be set forth in the loan contract.
 - (b) The resources of the loan shall be used to participate in the financing of a project (i) the investment cost of which is estimated at the equivalent of US\$5,579,100,000, and includes US\$4,456,000,000 corresponding to expenditures to be made during the project execution period and US\$1,123,100,000 corresponding to deferred interest payments, and (ii) the total financial requirements of which amount to the equivalent of US\$7,051,100,000. Consequently, the loan and guarantee contracts shall contain appropriate provisions to ensure that such re-sources as may be required, in addition to the loan, for the complete execution of the project shall be duly provided, in accordance with a schedule of investments satisfactory to the Bank, in a sum estimated at the equivalent of US\$6,841,100,000, including external credits from other sources of financing for a total of US\$1,983,000,000.
 - (c) Prior to signature of the loan contract, the borrower shall present to the satisfaction of the Bank:
 - (i) A plan for relocation of installations and resettlement of the people affected by the project, such plan to contemplate the fulfillment of the basic needs of the urban, semiurban and rural populations at least with regard to the following aspects:
 - (1) urban, semiurban and rural housing programs, including the proposed solutions for each socio-economic group;

- (2) programs for relocation of infrastructure and resettlement of the rural population, and
- (3) social programs.

If the plan were to contemplate the participation of other institutions in one or more of the programs, the responsibilities corresponding to such institutions shall be indicated and a description of their respective operational capacities given. In any event, the construction and complementation schedules of the different programs shall be included.

With relation to the plan, the borrower shall have also signed the agreements necessary to assure the participation of other institutions with respect to the relocation or resettlement expected to take place in 1979.

- (ii) Proof of the appointment of the area chiefs for planning and administration of the relocation program and the professionals in charge of the programs for resettlement of the rural population and social aspects.
- (d) Prior to the first disbursement of resources of the loan, the borrower shall present proof to the satisfaction of the Bank that:
 - (i) the guarantor has agreed to provide it, between 1979 and 1990, with financing on adequate terms and conditions for this project, in an amount not less than the equivalent of US\$1,800,000,000 in terms of December 1977 United States dollars, out of resources from the Fondo Chocón-Cerros Colorados and the Fondo Nacional de Grandes Obras Eléctricas. This amount will increase, with the addition of price escalation, to an amount not less than the equivalent of US\$2,700,000,000. Such amounts include the total estimated cost of the relocation of installations and the resettlement of the population;
 - (ii) the IBRD has declared that the loan to be granted to the Argentine Republic to assist in financing the project, has entered into effect;
 - (iii) with respect to the external resources:
 - (1) it has entered into credit agreements for the financing of the acquisitions and other investments needed during 1979;

- (2) it has obtained from export credit agencies, letters of intent or communications indicating their intention to provide credits in sufficient amounts to cover foreign procurement scheduled for 1980 and 1981;
 - (3) it has received from commercial financial entities letters or communications indicating their intention to grant credits in amounts sufficient to meet the requirements scheduled to be financed from such source in 1980-1981;
 - (4) it has determined whether it will need to obtain funds through the complementary financing programs of the Bank during 1979, and, if so, has submitted the respective letter of authorization indicating the amount requested.
- (iv) it has engaged a consulting firm to prepare the detailed plans and perform the technical supervision of the execution of the project;
 - (v) it has obtained the commitment of individual experts to advise it on specific technical aspects relating to the execution of the project;
 - (vi) Argentina and Paraguay have complied with Article VI of the Treaty of Yacyretá, to the extent required by the execution of the project;
 - (vii) it has given formal approval to its definitive organization plan for the period of project execution; and
 - (viii) a report has been prepared by a qualified independent consultant analysing the borrower's insurance requirements and describing the program to be implemented during the construction period.
- (e) The guarantor shall commit itself to grant or facilitate the granting of additional credits in terms and conditions compatible with the financing plan if the resources to be provided from the Fondo Chocón-Cerros Colorados and the Fondo Nacional de Grandes Obras Eléctricas turn out to be insufficient during the project execution period.
 - (f) During the first 60 days of each calendar year, the borrower shall present proof that it has available the necessary external resources for financing the investments scheduled for that year.

- (g) Six months prior to the scheduled date for the placing in service of the project's power house, the borrower shall present to the Bank the program for implementing the rate plan provided for in the Treaty of Yacyretá, covering the following aspects:
 - (i) the amount necessary for the payment to the parties members of Yacyretá of a dividend of 12% per annum on their participation in the paid-in capital;
 - (ii) the amount necessary for the service of the loan;
 - (iii) the amount required to pay Agua y Energía Eléctrica of Argentina and the Administración Nacional de Energía Eléctrica of Paraguay, in equal sums, as restitution for their total expenditures in Yacyretá;
 - (iv) the amount necessary to cover operating costs, and
 - (v) the amount of the final net income or loss of the operating statement for the prior fiscal year.
- (h) Up to the equivalent of US\$3,000,000 of the resources of the financing may be utilized to cover expenses incurred in the project before the effective date of the contract, but after April 1, 1978, provided that requirements substantially similar to those set forth in this resolution and the loan contract have been fulfilled.
- (i) In the acquisition of machinery, equipment and other materials for the project and in the awarding of construction contracts financed totally or partially:
 - (i) with loan resources, the system of international public bidding shall be followed in each case in which the value of such acquisitions or contracts exceeds the equivalent of US\$100,000. The bidding for these acquisitions shall be subject to procedures to be set forth in an annex to the loan contract; and
 - (ii) with the local contribution and with resources not derived from the Bank and World Bank loans, procedures acceptable to the Bank shall be followed.
- (j) The Bank shall establish such inspection procedures as it deems necessary to ensure the satisfactory execution of the project, and the borrower, the guarantor and the Republic of Paraguay shall extend all cooperation which is required for the most effective accomplishment of this

purpose. From the amount of the financing the sum of US\$2,100,000 shall be allocated for credit to the general accounts of the Bank to meet expenses of general inspection and supervision.

RECOMMENDATIONS

It is recommended that the following conditions, to be fulfilled to the satisfaction of the Bank, be included in the loan contract in addition to the conditions set forth in the proposed resolution:

1. Unless the Bank shall otherwise agree, the borrower shall present prior to each public call for bids:
 - (i) the plans, specifications and other documents necessary for such call, and
 - (ii) in the case of construction works, evidence that the lands required for the execution of the works are situated in areas demarcated in accordance with Article XVII of the Treaty of Yacyretá. Prior to the awarding of the contracts, the borrower shall present evidence that it is in possession of the lands or is in condition to take such possession immediately.
2. The borrower shall agree to present to the Bank:
 - (i) Within a period of 12 months after the date of the loan contract:
 - (1) proof that an accounting system appropriate for the execution phase of the project has been put into operation. Should there arise a need to improve the system during its evaluation, the borrower shall hire an independent consulting firm to propose the ways needed to accomplish it.
 - (2) the demarcation of the areas to be declared of eminent domain in accordance with Article XVII of the Treaty of Yacyretá.
 - (ii) Within 60 days after the end of each calendar quarter, the reports relative to the execution of the project, including the plan for the resettlement of the population, in accordance with particulars which the Bank may communicate to the borrower.
 - (iii) Six months before the date the navigation lock is scheduled to go into service, a copy of the agreement between the Republic of Argentina and the Republic of Paraguay to govern its operation and management.

- (iv) Six months before the date the power house is scheduled to begin operation, its organization chart, organization manual and the plan for the hiring of personnel to fill the key positions, and the insurance program for the operating phase.
 - (v) Three months prior to the beginning of each calendar year, commencing with 1979 for the works to be built during 1980, the borrower shall demonstrate that it has entered into the necessary agreements with other agencies assuring their participation in the execution of the plan for the resettlement of the population, whose initiation is scheduled for the respective year;
 - (vi) Prior to June 30, 1980, it has obtained letters or communications indicating the intention of the pertinent financial entities to grant credits to it in amounts sufficient to meet the financial requirements of local origin scheduled for 1981; and
 - (vii) Two years after the termination of the execution of the relocation program, an evaluation of the social aspects of the program in accordance with a methodology previously approved by the Bank.
3. The guarantor shall agree to:
- (i) present to the Bank:
 - (1) within a period of one year after the date of the guarantee contract: (a) proof that a formal decision has been made to assign to AyEE the resources required to cover the annual financing of the cost of construction of the transmission lines associated with the project, as well as the plan for financing their total execution; (b) the rules for the imposition of the fees on the companies involved for the use of the high tension national transmission system.
 - (2) Within the period ending December 31, 1979: (a) the institutional arrangements that will be available for the electric energy sector in matters related to planning and financial programming of the sector; and (b) the Master Plan for the equipping of the electric sector during the period 1986-2000.
 - (3) Within the period ending December 31, 1980, the organization and the execution and financial plans for the interconnecting of the Central-Cuyo, Central-Northeast and Seaboard-Northeast regions, based on the assumption that these facilities will go into operation before July 1, 1985.

- (4) Within the period ending June 30 1981, the methodology to be used for the annual revaluation of assets from 1981 on, affecting the companies of the electric sector: Agua y Energía Eléctrica (AyEE), Servicios Eléctricos del Gran Buenos Aires (SEGBA), Hidroeléctrica Norpatagónica, Sociedad Anónima (HIDRONOR), Comisión Nacional de Energía Atómica (CNEA) y Comisión Técnica Mixta de Salto Grande (Salto Grande). The methodology shall be adjusted to the provisions applicable in Argentina and shall be used basically to secure the functioning of the electric sector within the appropriate economic and financial practices ruling public utility companies.
 - (5) Within the first 90 days of each calendar year and up to 1985, the income and expenditures budget of AyEE and SEGBA.
 - (ii) take the necessary steps so that the rates for the supply of energy by AyEE, HIDRONOR and CNEA will produce revenues sufficient to provide a rate of return on fixed utility investment of at least 8% beginning in 1979 in the case of HIDRONOR and CNEA, and of at least 4% in 1979, 6% in 1980 and 8% in ensuing years in the case of AyEE. Moreover, the rate of SEGBA shall be maintained in real terms, until 1981, at the level reached in January 1978, and in the ensuing years, it shall produce a return of at least 8%.
4. Should the Republic of Argentina and the Republic of Paraguay decide to entrust the study, design, construction and/or operation of any other project to the borrower, they shall agree to take the necessary measures acceptable to the Bank, so that the execution of the project will not be adversely affected thereby.
 5. Within a period of one year after the date of the contract, the Republic of Argentina and the Republic of Paraguay shall take the appropriate measures for the application of Article XVIII of the Treaty of Yacyretá, to the extent necessary for the execution of the project.
 6. The financial statements of the borrower shall be certified by a firm of independent public accountants acceptable to the Bank, beginning with the fiscal year ending December 31, 1979.
 7. The Bank may recognize as part of the local contribution to the project, expenditures up to the equivalent of US\$152,000,000 incurred within the 18 months preceding the date of the loan contract, for engineering and preparatory work under the principal construction contracts.
 8. The execution contract between the Governments of the Republic of Argentina and the Republic of Paraguay shall be signed at the time of signature of the loan and guarantee contracts.

9. Annexes substantially similar in content to Appendix C (Project Description) and Appendix D (Bidding Regulations) shall be included in the loan contract.

PROJECT DESCRIPTION

(Annex A to Loan Contract)

A. Purpose

The purpose of the Project is the construction of a hydroelectric power station, with an installed capacity for the production of energy of 2,700 MW and 17,500 GWH of energy. It is also aimed at improving navigability along the Paraná River, permitting the irrigation of arable lands in Paraguay and Argentina and paving the way for the development of the area's touristic and recreational potential. As a parallel activity, the people living in the area to be flooded for construction of the reservoir will be resettled, and the infrastructure facilities affected by the flooding will be relocated.

Description of the Works

1. A generating station will be built, consisting of:
 - (i) riprap dam approximately 70 Km. long which, together with the concrete structures, will form a reservoir of about 1,700 Km² and impound approximately 21,000 Hm³ of water.
 - (ii) Two reinforced concrete spillways, with a designed discharge capacity of 95,000 m³/sec, in which some 34 gates will be installed, together with the corresponding equipment, gantry cranes and racks necessary for operation and maintenance.
 - (iii) A covered conventional power house with capacity for the installation of:
 - (a) 20 Kaplan turbines of 128 Kw;
 - (b) 20 generators of 135 MW with their transformer units;
 - (c) high voltage circuits for interconnection of the switchyard;
 - (d) emergency gates, screens and racks;
 - (e) fishways;

- (f) traveling cranes and pantry cranes for operation and maintenance; and
 - (g) electrical control and gauging equipment and such auxiliary equipment as the plant requires.
2. A navigation lock for the passage of vessels of up to 12 foot drafts, with appropriate water intakes.
3. The Project will also consist of the following structures:
- (i) an irrigation water intake on each bank of the river;
 - (ii) a wall or dike to prevent the reservoir from encroaching on the Aguapey creek and adjacent areas, and equipment for pumping water from the creek into the main reservoir;
 - (iii) permanent housing for personnel, with appropriate community facilities and infrastructure services;
 - (iv) a 1,500 meter service bridge accros the river, to serve later as part of the highway connection between Paraguay and Argentina.
4. A relocation program for:
- (i) resettlement of some 33,000 people in Encarnación and Carmen del Paraná on the Paraguay side and in Posadas on the Argentine side, and in the rural areas of both countries that are affected by the flooding; and
 - (ii) infrastructure works on both banks of the river, consisting of the relocation of railway, highway, electric, sanitation and telephone facilities.

C. Cost of Project

The total cost of the Project is estimated at the equivalent of US\$5,579,100,000. A detailed breakdown of this cost, showing the proposed sources of financing, is given in the following table:

BUDGET AND FINANCING SCHEME

(in US\$ millions)

	BUDGET			FINANCING SCHEME							
	Foreign exchange	Local Curr.	Total	Foreign currency					Local currency		
				BANK	IBRD	Export credit	External loans	Internal Funds	Capital	Local Banks	External Loans
AND ADMINISTRATION											
and Management	53.0	79.5	132.5	23.2	23.3	-	1.2	5.3	-	8.9	-
Overhead	-	90.0	90.0	-	-	-	-	-	49.2	40.8	-
Category 1	53.0	169.5	222.5	23.2	23.3	-	1.2	5.3	49.2	49.7	-
CONSTRUCTION COSTS											
y works	-	103.3	103.0	-	-	-	-	-	0.4	-	13.5
s	600.1	595.6	1,195.7	106.1	107.9	193.6	95.0	97.5	-	216.0	170.4
equipment	232.4	12.8	245.2	-	-	232.4	-	-	-	-	2.9
equipment	129.3	71.0	200.3	-	-	126.5	-	2.8	-	-	18.1
tions	-	66.4	66.4	-	-	-	-	-	-	-	33.2
-	-	172.7	172.7	-	-	-	-	-	-	-	18.2
Category 2	961.8	1,021.8	1,983.6	106.1	107.9	552.5	95.0	100.3	0.4	216.0	256.3
CHARGES											
tion and	-	-	-	2.1	-	-	-	-	-	-	-
on	931.0	-	931.0	-	-	-	403.5	508.1	17.3	-	-
redits	-	1,250.5	1,250.5	-	-	-	-	-	-	-	-
Category 3	931.0	1,250.5	2,181.5	2.1	-	-	403.5	508.1	17.3	-	-
Contingencies	98.5	125.5	224.0	18.3	18.8	49.4	-	12.0	-	-	43.3
For escalation	405.9	561.6	967.5	60.3	60.0	227.6	-	58.0	-	0.4	130.2
Category 4	504.4	687.1	1,191.5	78.6	78.8	277.0	-	70.0	-	0.4	173.5
TOTAL	2,450.2	3,128.9	5,579.1	210.0	210.0	829.5	499.7	683.7	17.3	50.0	429.8
Percentages	44.0	56.0	100.0	3.8	3.8	14.9	8.9	12.3	0.3	0.9	7.5

loans include US\$15 million obtained by Yacyretá en 1978.

amount, US\$1,123,100,000 does not constitute a financial requirement during construction since it bonds to deferred interest on the Funds.

D. Financing Plan

The following table shows the Project financing scheme, with an indication of the various sources of funds and currencies of origin and use contemplated:

Origin and Use of Funds (equivalent in millions of US\$)

	<u>Currency of</u> <u>Origen</u>		<u>Expenditures</u>		<u>Total</u>	<u>%</u>
	<u>Foreign</u> <u>exchange</u>	<u>Local</u> <u>currency</u>	<u>Foreign</u> <u>exchange</u>	<u>Local</u> <u>currency</u>		
A. <u>Investment resources</u>						
Bank (OC)	210.0	-	210.0	-	210.0	3.0
IBRD	210.0	-	210.0	-	210.0	3.0
Export credits	829.5	-	829.5	-	829.5	11.8
Loans from abroad	929.5	-	513.2	416.3	929.5 ^{1/}	13.2
Argentine Funds	-	1,909.7	683.7	1,226.0	1,909.7 ^{1/}	27.1
Local banks	-	300.0	-	300.0	300.0	4.2
Internally generated Yacyretá funds	-	17.3	-	17.3	17.3	0.2
Yacyretá capital	-	50.0	-	50.0	50.0	0.7
Total investment	<u>2,179.0</u>	<u>2,277.0</u>	<u>2,446.4</u>	<u>2,009.6</u>	<u>4,456.0^{2/}</u>	<u>63.2</u>
B. <u>Resources for financial requirements</u>						
Loans from abroad	14.0	-	14.0	-	14.0	0.2
Argentine Funds	-	714.1	257.3	456.8	714.1	10.1
Net internal generation	-	<u>1,867.0</u>	<u>1,341.8</u>	<u>523.6</u>	<u>1,867.0</u>	<u>26.5</u>
Total financial requirements	<u>14.0</u>	<u>2,581.1</u>	<u>1,613.1</u>	<u>980.4</u>	<u>2,595.1</u>	<u>36.8</u>
TOTAL	<u>2,193.0</u>	<u>4,858.1</u>	<u>4,059.5</u>	<u>2,990.0</u>	<u>7,051.1</u>	<u>100.0</u>
Percentages	31.1	68.9	57.6	42.4	100.0	

^{1/} and ^{2/} Not including deferred interest in a total amount equivalent to US\$1,123,100,000.

E. Bidding

When goods to be acquired through public bidding are to be financed in whole or in part with foreign exchange from the inter-regional capital loan, the bidding procedures and specific bidding requirements shall permit unrestricted participation of bidders of or from member countries of the Bank. Consequently, no conditions that would preclude or restrict the participation of such bidders shall be established in such procedures or specific requirements.

F. Consultants

The Borrower shall have available throughout the Project execution period, the services of consultants for engineering and works supervision and of a group of high-level individual experts to advise it in specific technical matters related to the Project. The Bank may allow the Borrower to continue using the services of the consortium that made the feasibility studies for the engineering and supervision tasks. However, the Bank reserves the right to review and approve the draft of the service contract to be signed by the Borrower and the consulting consortium.

BIDDING REGULATIONS FOR THE PROCUREMENT OF GOODS AND AWARDING OF
CONTRACTS FOR THE YACYRETA HYDROELECTRIC PROJECT

Article 1: These Regulations shall apply to bidding on items to be financed in whole or in part with proceeds of the loan from the Inter-American Development Bank.

Article 2 - Application: The system of international public bids shall be followed in each case in which the value of the acquisitions or contracts exceeds the equivalent of US\$100,000 (one hundred thousand dollars of the United States of America). Nonetheless, at the request of Yacyretá in duly justified cases, the Bank may agree to the application of a different procedure for acquisitions or contracts in excess of this value.

Article 3 - Procedures: In the case of the contracting or procurement in amounts less than the sum indicated in the preceeding article, Yacyretá shall apply procedures which take due regard to economy and efficiency in the use of Project resources.

Article 4 - Scope and Bidding: The international bidding shall be limited to member countries of the Bank.

Article 5 - Call for Bids: The call for international bids shall specify, as a minimum, the scope of the bidding, the place, date and hour in which the bidding documents may be obtained, the place, date and hour in which the offers must be presented, the amount of the bid bond, the source of the financing and the restriction with respect to countries of origin of the offers. In the case of bids for construction, the site must be specified. The call shall be subject to the approval of the Bank.

Article 6 - Publicity: Calls for public bids shall be published in at least two of the dailies of largest circulation in Buenos Aires and Asunción and in at least one specialized technical journal of international distribution, with an interval of at least three days between publication of the respective bidding announcements. The announcements shall indicate a period of at least 30 calendar days, from the date of the last publication, for the receipt of the offers.

Article 7 - Notices to Embassies: Concurrently with the publication of the public bidding announcement, invitations shall be sent to the Embassies or, in their absence, to the Consulates of the eligible countries that have accredited representation to the Argentine and Paraguayan Governments. The invitations shall contain the same information as is published in the announcements of the call for bids.

Article 8 - Schedule of Conditions: Prior to the calls for bids referred to in Article 2, Yacyretá shall present for the Bank's approval the pertinent general conditions and specifications. Any substantive amendments or additions to such specifications shall be subject to similar approval. Queries answered by Yacyretá shall be communicated, together with the reply, to all proponents and the Bank, and will not have the effect of suspending the period for presentation of offers.

Article 9 - Opening of Offers in International Bids:

1. Proposals will be received up to the date and hour stipulated and in the place indicated in the specific bidding regulations. They will be numbered consecutively in order of presentation. After the hour specified, proponents may not withdraw or alter proposals.
2. The opening of the offers will be presided over by an authorized officer of Yacyretá and carried out before an authorized notary public and in the presence of representatives of the participating proponents and Yacyretá. Once the first envelope has been opened, no clarifications of proposals will be admitted. An authorized representative of Yacyretá or a notary public will read the names of the proponents and the overall prices of the proposals and any alternatives. When the last proposal has been opened, minutes will be prepared, which will include any clarifications made before the opening of the first envelope, any formal observations made during the course of the ceremony, and such decisions as the person presiding over the ceremony may wish to have recorded. The minutes will then be read and shall be signed by the representative of Yacyretá, who shall invite such proponents as may wish to sign to do so.
3. The person presiding the ceremony will invite the representatives of the proponents to initial the originals of the proposals. The proposals will also be initialed by the authorized representative of Yacyretá. All pages of the proposals and plans and the cover of any booklets or printed materials will be initialed and numbered. The originals of the offers, duly initialed, will remain in the custody of Yacyretá.

4. The copies of the proposals will remain at the disposal of the proponents at the place specified in the call for bids, or such other place as may be expressly indicated, for a period of at least two business days following the day of the ceremony. Any observation on matters of substance or form of the proposals shall be presented within three working days after the closing date. These observations shall be considered but not answered by Yacyretá.
5. The proponents will be entitled to examine all the documentation presented. They will be allowed to reproduce the proposals of others in whole or in part, provided that all of them express their agreement to this in the minutes or in writing. Such concurrence will be requested separately for the written documentation and for the plans.
6. The proposals will be prepared and presented in accordance with the requirements set forth in the bidding documents. Nevertheless, Yacyretá reserves the right to admit offers containing defects of form, omissions or obvious errors, provided this does not impair the equal treatment of all proponents or the proper evaluation of the offers.
7. Subsequent to the opening ceremony, Yacyretá may request in writing such clarifications or information as it deems appropriate, provided that this does not depart from the bidding bases or impair the principle of equality among proponents. The replies shall be made in writing and shall be confined to the points in question and shall not modify the offer. Oral or written clarifications not requested by Yacyretá will not be considered.

Article 10 - Analysis of Proposals and Preselection:

1. After the end of the term described in number 4 of Article 9, the proposals will be studied together with any observations that have been made, in accordance with the rules set forth in the following articles:
2. Consultants will receive a copy of each proposal, duly checked by them against the original, which they will use for studying the proposals, with all the reservations appropriate to their confidential nature.

If there are any differences between the original and such copy Yacyretá will, at the request of the consultants, give them a copy of the missing documentation.

3. The Consultants will be allowed a term to be set in each case, but in any event not to exceed 45 business days, in which to study the proposals and present the final report.
4. The Consultants shall not have any contact, direct or indirect, verbal or written, with the proponents without the previous consent of Yacyretá. Yacyretá will entertain requests from the Consultants to engage in such contacts provided that in its opinion this would not be contrary to the principle of equality set forth in Article 9, number 7.

If meetings are held with any proponent, such meeting shall be attended by the Consultants and the Technical Commission for the Study of Offers, or such representatives as Yacyretá may designate, and the minutes setting forth the business discussed at such meetings will be kept.

5. Taking into consideration the offers, the bidding requirements and the final report of the Consultants, the Technical Committee for the Study of Offers, consisting of representatives of the pertinent Divisions, will prepare a report in which the technical, legal, economic, financial and administrative aspects of the proposals will be considered and tabulated in such a way as to provide a clear presentation of them.
6. The Report of the Technical Committee for the Study of Offers shall not reject any offers in the course of making its study, except by express decision of Yacyretá. In its findings it shall justify its conclusions as to which offers may be discarded, and it shall list the proposals in the order it deems most advisable.
7. The report on the analysis of proposals will be submitted for approval of the competent agency of Yacyretá in accordance with the existing regulations.
8. The report approved by Yacyretá on the analysis of proposals shall be submitted to the Bank for its concurrence before the result is communicated to the preselected or winning firm, together with an indication of the offer that Yacyretá considers most advisable and the reasons for such conclusions.
9. Once the Bank's concurrence has been obtained, the award will be made and communicated to the participants in the manner prescribed in the bidding specifications.

Article 11 - Modification of the Selection: Should the award be made in favor of a proposal other than that agreed upon with the Bank, or should other substantial changes be introduced in the report, the pertinent documents shall be sent to the Bank for its concurrence and the procedure set forth in the preceding Article shall be repeated.

Article 12 - Award: When as a result of bidding procedures carried out pursuant to Article 2 the award has been made to the proponent selected according to Article 9, a copy of the draft of the proposed contract to be signed with the awardee will be sent to the Bank.

Article 13 - Bidding Voided: Yacyretá will declare the bidding void in those cases in which the contract cannot be awarded because of a lack of proponents. The bidding shall be declared null in those cases in which no proposals with an acceptable price or proposals conforming to the conditions in the bidding bases are presented. In this case, the Bank's concurrence shall be obtained. In any of the cases indicated, a second bidding operation will be carried out unless Yacyretá and the Bank agree upon another course of action for selecting the awardee.

Article 14 - Rescissions: When a contract has been rescinded by reason of the contractor's failure to comply with the contract, whether because of the quality of the work, because the work was not performed according to schedule, or because the quality of the machinery, equipment or other goods or the failure to deliver them on schedule, or for other reasons established in the respective contract, Yacyretá, in the cases envisaged in Article 2 hereof, shall agree with the Bank upon the course of action to be taken in such situations.

Article 15 - Margin of Preference: In international bidding, a margin of preference may be applied in favor of offers of goods originating in the Republic of Paraguay or the Republic of Argentina, as the case may be, or in member countries of the Latin America Free Trade Association (LAFTA), in accordance with the following rules:

(a) National Margin of Preference

(i) A good shall be considered to be of Paraguayan or Argentine origin if the cost of the Paraguayan or Argentine materials, labor and services used to produce it constitute not less than 40% of its total cost.

(ii) In comparing offers, the price of goods of Paraguayan or Argentine origin shall be considered to be the delivered price at the project site, with deductions for:

- (1) import duties paid on significant raw materials or manufactured components, and
- (2) local sales, consumption and value-added taxes incorporated in the cost of the item or items being offered.

The bidder shall establish proof of the amounts to be deducted under (1) and (2) above, which shall be deducted for the sole purpose of facilitating the comparison of proposals.

(iii) Also for the purposes of comparing proposals, the offered price of goods of foreign origin shall be the CIF price (less import duties, consular and port fees), plus handling charges at the port and transportation expenses from the port or border point of entry to the project site.

(iv) In comparing offers of products of Paraguayan and Argentine origin and of foreign origin, the following rules shall be observed:

- (1) The costs expressed in foreign currency shall be converted to their equivalent in Paraguayan guaranis or Argentine pesos at the rate of exchange agreed upon by the Borrower and the Bank in the Loan Contract; and
- (2) A 15% margin of preference or the actual import duty paid, whichever is the lesser, shall be added to the price of the foreign product calculated in accordance with (iii) above.

(v) If application of the above rules indicates that the offer of the local product is more favorable than that of the foreign product, foreign exchange forming part of the Loan may be used to acquire the local product.

(b) Regional Margin of Preference

(i) A good shall be considered to be of regional origin if it was produced in a member country of LAFTA and satisfies the requirements set forth in the legal instruments governing LAFTA with respect to origin and to other matters related to the programs for liberation of regional trade.

(ii) In comparing offers, the CIF price of the foreign product shall be increased by the amount of handling charges at the port and the local transportation expenses from the port or border point of entry to the project site.

(iii) In comparing prices of goods originating in member countries of LAFTA and of goods originating in countries which are not members of LAFTA, the following rules shall be observed:

- (1) The prices expressed in foreign currencies shall be converted to their equivalent in Paraguayan guaranis or Argentine pesos using the same basis of computation as established in (a)(iv)(1) above; and
- (2) A 15% margin of preference or the difference between the import duties applicable to goods originating in member countries of LAFTA and the duties applicable to goods not originating in such countries, whichever is the lesser, shall be added to the price of the products originating in countries which are not members of LAFTA.

(iv) If application of the above rules indicates that the offer of the product originating in a member country of LAFTA is more favorable than that of the product originating in a country which is not a member of LAFTA, foreign exchange forming part of the Loan may be used for the acquisition of the former product.

Article 16 - Prequalification: In bidding operations for the execution of works to be financed with resources of the Bank's loan, the proponent firms will be prequalified in terms of their experience and legal, technical and financial capacity. There shall be no exceptions to this rule save in the case of minor works of limited technical or economic significance. The system of prequalification may be governed by the procedure for prequalification simultaneous with the offer, by means of the two-envelope mechanism, in cases of construction which is of some importance or which is classified as urgent by Yacyretá. Calls for prequalification shall be publicized in the manner specified in Article 6 for a period of at least 30 days and shall contain the information indicated in Article 5. The bases for prequalification shall be agreed upon by Yacyretá and the Bank before the call for prequalification is published. Using the information supplied by the interested parties, Yacyretá will study, review and analyze the report of each of them and classify as eligible only those that are technically, financially, legally and administratively qualified to do the work in accordance with the required specifications and within the period set. Copies of the analyses made and of the lists of firms will be submitted for the Bank's consideration together with the general criteria applied in screening the contractors. In these cases the bidding on construction work will be limited solely to the firms prequalified.

Article 17 - Prompt Pronouncement by the Bank: The Bank shall make a prompt decision on any document submitted for its consideration, so that the normal progress of the Project will not be impaired and the execution timetables will be complied with.

Article 18 - Scope of these Regulations: This instrument is complementary to the provisions of the respective clauses of the Bank's Loan Contract. In the event of any conflict between the clauses of these Regulations and those of the Contract the latter shall prevail.

Article 19 - Origin of the goods: A good will be considered to have originated in the country where it was extracted, cultivated or produced, whether by manufacture, processing or assembly. The origin of the article "produced" is the country where, as a result of such processing, manufacture or assembly, it was converted to another commercially recognized article substantially different in its basic characteristics or purpose from any of its components.

Article 20 - Basic criteria: The application of the foregoing procedures shall be based on the principles of competency, publicity and equality among proponents.

EXECUTION AGREEMENT

AGREEMENT between the ARGENTINE REPUBLIC (hereinafter called "Argentina"); the REPUBLIC OF PARAGUAY (hereinafter called "Paraguay") and the INTER-AMERICAN DEVELOPMENT BANK (hereinafter called the "Bank").

WHEREAS:

1. On December 3, 1973, Paraguay and Argentina signed the Treaty of Yacyretá (hereinafter called the "Treaty") and Side Letters for the purpose of joint utilization of the water resources of the Paraná River at the point where the Island of Yacyretá is situated and to improve the navigability of that river;
2. To that end, Argentina and Paraguay established the "Binational Yacyretá Agency" (hereinafter called "Yacyretá") formed by the "Agua y Energía Eléctrica" company of Argentina and the "Administración Nacional de Electricidad" company of Paraguay, with equal amounts of capital stock;
3. Yacyretá has been entrusted with execution of the hydroelectric project (hereinafter called the "Project"), described in Annex A to the Loan Contract between the Bank and Yacyretá (hereinafter called the "Contract") signed on this date;
4. Pursuant to the Treaty, the power resulting from utilization of these hydroelectric facilities shall be divided equally between the two countries, and each shall be given the preferential right to acquire power not utilized by the other country for domestic consumption;
5. Pursuant to the Treaty, Paraguay and Argentina have agreed to acquire jointly or individually the total amount of the plant's installed capacity, the method for doing so having been agreed to in Side Letter No. 22 of December 3, 1973;
6. With the backing of both Governments, Yacyretá has requested that the Bank participate in the financing of the Project, and
7. In the Loan Contract, of whose provisions the Governments declare that they are aware, the Bank has agreed to allocate resources equivalent to US\$210 million for execution of the Project.

The parties signatory to this Execution Agreement undertake the following:

CHAPTER I

Purpose

Article 1. The purpose of the present Agreement is to establish the measures that will be adopted by Argentina and Paraguay, pursuant to the Treaty, for complete execution of the Project.

CHAPTER II

Project Execution

Article 2. Paraguay and Argentina agree to adopt such measures as may be necessary to expedite timely execution of the Project. To this end, the decisions described hereinafter shall be adopted on the dates indicated.

Article 3. Argentina and Paraguay agree to adopt such measures as the parties deem necessary to expedite execution of the plan for relocation of facilities and resettlement of the population referred to in the Loan Contract.

Article 4. Paraguay and Argentina shall adopt such measures as may be necessary under Article VI of the Treaty to ensure demarcation of the international boundary of the Project Zone six (6) months prior to the date scheduled for implementing the action altering the natural course of the Paraná River.

Article 5. Argentina and Paraguay shall duly adopt the regulations mentioned in Article VII of the Treaty, a copy of which shall be submitted to the Bank by Yacyretá six (6) months prior to the date envisaged for the navigation lock to be put into service.

Article 6. Within a period of twelve (12) months from the date of this Agreement, Paraguay and Argentina shall take the necessary measures to complete the special regulations envisaged in Article XVIII of the Treaty, to the extent considered necessary by the parties for execution of the Project.

Article 7. In the procurement of goods and services to be financed with resources provided for in the Loan Contract, Yacyretá shall use the international public bidding procedures agreed upon with the Bank in such Contract.

Article 8. Argentina and Paraguay undertake to adopt the measures deemed necessary by the parties for implementation of the ecological programs to be carried out by Yacyretá in connection with the Project. In the event that continuation of such programs requires the participation of national institutions in both countries or in either of them, any measures adopted in this respect shall be communicated to the Bank.

Article 9. Paraguay and Argentina undertake to adopt all measures necessary to expedite satisfactory organization of Yacyretá during the Project execution stage and its adaptation to the phase of commercial operation.

Article 10. Argentina and Paraguay shall adopt timely measures to declare the areas necessary for installation of the hydroelectric facilities, auxiliary works and the exploitation thereof to be public utilities, and to carry out within the purview of their respective sovereignties, all administrative and legal acts for the expropriation of real property and improvements thereon, or to obtain easements thereupon, pursuant to provisions of Article XVII of the Treaty.

Article 11. Paraguay and Argentina shall duly adopt such measures as may be necessary to ensure that Yacyretá is able to submit to the Bank, six (6) months prior to the date scheduled for start-up of the Project plant, the program for application of the rate schedule provided for in the Treaty.

Article 12. Argentina and Paraguay shall cooperate with the Bank to facilitate the Project inspection provided for in the Loan Contract.

Article 13. If Paraguay and Argentina decide to entrust Yacyretá with the Project and the construction and operation of other similar facilities, as set forth in Article XXIII of the Treaty, they shall take such measures as the parties deem necessary to avoid any adverse effect on the execution of the Project.

CHAPTER III

Miscellaneous Provisions

Article 14. This Agreement shall enter into effect on this day's date.

Article 15. This Agreement and the obligations of Argentina and Paraguay contained in it shall terminate on the same date as the Loan Contract.

Article 16. The rights and obligations set forth in this Agreement are valid and applicable pursuant to the terms contained therein.

Article 17. Unless the parties agree otherwise in writing, all announcements, applications, communications or notifications issued pursuant to this Agreement shall be made in writing and shall be considered to have been made as of the time the corresponding document is delivered to the addressee at the respective addresses listed hereinafter;

PARAGUAY

ARGENTINA

IN WITNESS WHEREOF

The Republic of Argentina, the Republic of Paraguay and the Bank, each acting through an authorized representative, sign this Agreement in four identical copies, one for each party and one for Yacyretá, in the city of Washington, District of Columbia, United States of America, on

GOVERNMENT OF PARAGUAY

GOVERNMENT OF ARGENTINA

INTER-AMERICAN DEVELOPMENT BANK
