CONFORMED COPY

LOAN NUMBER 3277 MAS

(Environmental Monitoring and Development Project)

between

MAURITIUS

and

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Dated February 11, 1991

LOAN NUMBER 3277 MAS

LOAN AGREEMENT

AGREEMENT, dated February 11, 1991, between MAURITIUS (the Borrower) and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (the Bank).

WHEREAS: (A) the Borrower adopted, on July 10, 1990, its National Environmental Policy (the NEP) setting forth its program for environmental protection;

- (B) in connection with the NEP, the Borrower, having satisfied itself as to the feasibility and priority of the Project described in Schedule 2 to this Agreement, has requested the Bank to assist in the financing of the Project;
- (C) the Borrower intends to contract from the International Centre for Ocean Development (ICOD) a grant (the ICOD Grant), in an

amount equivalent to \$400,000, to assist in financing part of the Project, on the terms and conditions set forth in an agreement (the ICOD Grant Agreement) to be entered into between the Borrower and ICOD; and

WHEREAS the Bank has agreed, on the basis, inter alia, of the foregoing, to extend the Loan to the Borrower upon the terms and conditions set forth in this Agreement;

NOW THEREFORE the parties hereto hereby agree as follows:

ARTICLE I

General Conditions; Definitions

Section 1.01. The "General Conditions Applicable to Loan and Guarantee Agreements" of the Bank, dated January 1, 1985, with the last sentence of Section 3.02 deleted (the General Conditions) constitute an integral part of this Agreement.

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

- (a) "AQL" means the Agricultural Quality Laboratory;
- (b) "Black River Gorges National Park" means the national park to be established under Part G of the Project;
 - (c) "CEL" means the Central Environmental Laboratory;
- (d) "EPD" means the Environmental Protection Department within MELU;
 - (e) "HQL" means the Health Quality Laboratory;
- (f) "Industrial Park" means the industrial park referred to in Part C.1 of the Project;
- (g) "MAFNR" means the Borrower's Ministry of Agriculture, Fisheries and Natural Resources;
- (h) "Marine Parks" means the marine parks referred to in Part F.3 of the Project;
 - (i) "MCD" means the Marine Conservation Division of MAFNR;
- (j) "MELU" means the Borrower's Ministry of Environment and Land Use;
- (k) "MEMP" means the marine environmental management plan referred to in Part F.1 of the Project;
 - (1) "MH" means the Borrower's Ministry of Health;
- (m) "MI" means the Borrower's Ministry of Industry and Industrial Technology;
 - (n) "MLG" means the Borrower's Ministry of Local Government;
- (o) "MOE" means the Borrower's Ministry of Energy, Water Resources and Postal Services;
- (p) "NEC" means the Borrower's National Environment Commission, established on December 24, 1987;

- (q) "NPDP" means the national physical development plan referred to in Part A.1 of the Project;
- (r) "Technical Steering Committee" means the technical steering committee referred to in paragraph 9 of Schedule 5 to this Agreement;
 - (s) "WQL" means the Water Quality Laboratory; and
- (t) "Marine Zoning Plan" means the marine zoning plan referred to in Part F.2 of the Project.

ARTICLE II

The Loan

Section 2.01. The Bank agrees to lend to the Borrower, on the terms and conditions set forth or referred to in the Loan Agreement, various currencies that shall have an aggregate value equivalent to the amount of twelve million three hundred and seventy thousand dollars (\$12,370,000), being the sum of withdrawals of the proceeds of the Loan, with each withdrawal valued by the Bank as of the date of such withdrawal.

Section 2.02. The amount of the Loan may be withdrawn from the Loan Account in accordance with the provisions of Schedule 1 to this Agreement for expenditures made (or, if the Bank shall so agree, to be made) in respect of the reasonable cost of goods and services required for the Project described in Schedule 2 to this Agreement and to be financed out of the proceeds of the Loan.

Section 2.03. The Closing Date shall be June 30, 1996 or such later date as the Bank shall establish. The Bank shall promptly notify the Borrower of such later date.

Section 2.04. The Borrower shall pay to the Bank a commitment charge at the rate of three-fourths of one percent (3/4 of 1%) per annum on the principal amount of the Loan not withdrawn from time to time.

Section 2.05. (a) The Borrower shall pay interest on the principal amount of the Loan withdrawn and outstanding from time to time, at a rate for each Interest Period equal to the Cost of Qualified Borrowings determined in respect of the preceding Semester, plus one-half of one percent (1/2 of 1%). On each of the dates specified in Section 2.06 of this Agreement, the Borrower shall pay interest accrued on the principal amount outstanding during the preceding Interest Period, calculated at the rate applicable during such Interest Period.

- (b) As soon as practicable after the end of each Semester, the Bank shall notify the Borrower of the Cost of Qualified Borrowings determined in respect of such Semester.
 - (c) For the purposes of this Section:
 - (i) "Interest Period" means a six-month period ending on the date immediately preceding each date specified in Section 2.06 of this Agreement, beginning with the Interest Period in which this Agreement is signed.
 - (ii) "Cost of Qualified Borrowings" means the cost, as reasonably determined by the Bank and expressed as a percentage per annum, of the outstanding borrowings of the Bank drawn down after June 30, 1982, excluding such borrowings or portions

thereof as the Bank has allocated to fund: (A) the Bank's investments; and (B) loans which may be made by the Bank after July 1, 1989 bearing interest rates determined otherwise than as provided in paragraph (a) of this Section.

- (iii) "Semester" means the first six months or the second six months of a calendar year.
- (d) On such date as the Bank may specify by no less than six months' notice to the Borrower, paragraphs (a), (b) and (c) (iii) of this Section shall be amended to read as follows:
 - "(a) The Borrower shall pay interest on the principal amount of the Loan withdrawn and outstanding from time to time, at a rate for each Quarter equal to the Cost of Qualified Borrowings determined in respect of the preceding Quarter, plus one-half of one percent (1/2 of 1%). On each of the dates specified in Section 2.06 of this Agreement, the Borrower shall pay interest accrued on the principal amount outstanding during the preceding Interest Period, calculated at the rates applicable during such Interest Period."
 - "(b) As soon as practicable after the end of each Quarter, the Bank shall notify the Borrower of the Cost of Qualified Borrowings determined in respect of such Quarter."
 - "(c) (iii) 'Quarter' means a three-month period commencing on January 1, April 1, July 1 or October 1 in a calendar year."

Section 2.06. Interest and other charges shall be payable semiannually on January 15 and July 15 in each year.

Section 2.07. The Borrower shall repay the principal amount of the Loan in accordance with the amortization schedule set forth in Schedule 3 to this Agreement.

ARTICLE III

Execution of the Project

Section 3.01. (a) The Borrower declares its commitment to the objectives of the Project as set forth in Schedule 2 to this Agreement and, to this end, shall carry out: (i) Parts A and B of the Project through MELU; (ii) Part C of the Project through MI; (iii) Part D of the Project through MLG; and (iv) Parts E, F and G of the Project through MAFNR, in each case with due diligence and efficiency and in conformity with appropriate administrative, engineering and conservationist practices, and shall provide, promptly as needed, the funds, facilities, services and other resources required for the Project.

- (b) Without limitation upon the provisions of paragraph (a) of this Section and except as the Borrower and the Bank shall otherwise agree, the Borrower shall carry out the Project in accordance with the Implementation Program set forth in Schedule 5 to this Agreement.
- Section 3.02. Except as the Bank shall otherwise agree, procurement of the goods, works and consultants' services required for the Project and to be financed out of the proceeds of the Loan shall be governed by the provisions of Schedule 4 to this Agreement.
- Section 3.03. The Borrower shall take all necessary action to complete the preparation of the NPDP no later than December 31,

ARTICLE IV

Financial Covenants

Section 4.01. (a) The Borrower shall maintain or cause to be maintained records and accounts adequate to reflect in accordance with sound accounting practices the operations, resources and expenditures in respect of the Project of the departments or agencies of the Borrower responsible for carrying out the Project or any part thereof.

(b) The Borrower shall:

- (i) have the records and accounts referred to in paragraph (a) of this Section for each fiscal year audited, in accordance with appropriate auditing principles consistently applied, by independent auditors acceptable to the Bank;
- (ii) furnish to the Bank as soon as available, but in any case not later than nine months after the end of each such year, the report of such audit by said auditors, of such scope and in such detail as the Bank shall have reasonably requested; and
- (iii) furnish to the Bank such other information concerning said records and accounts and the audit thereof as the Bank shall from time to time reasonably request.
- (c) For all expenditures with respect to which withdrawals from the Loan Account were made on the basis of statements of expenditure, the Borrower shall:
 - (i) maintain or cause to be maintained, in accordance with paragraph (a) of this Section, records and accounts reflecting such expenditures;
 - (ii) retain, until at least one year after the Bank has received the audit report for the fiscal year in which the last withdrawal from the Loan Account was made, all records (contracts, orders, invoices, bills, receipts and other documents) evidencing such expenditures;
 - (iii) enable the Bank's representatives to examine such records; and
 - (iv) ensure that such records and accounts are included in the annual audit referred to in paragraph (b) of this Section and that the report of such audit contains a separate opinion by said auditors as to whether the statements of expenditure submitted during such fiscal year, together with the procedures and internal controls involved in their preparation, can be relied upon to support the related withdrawals.

ARTICLE V

Remedies of the Bank

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

- (a) a situation has arisen which shall make it improbable that the NEP, or a significant part thereof, will be carried out; and $\,$
 - (b) (i) subject to subparagraph (ii) of this paragraph:
 - (A) the right of the Borrower to withdraw the proceeds of any loan or grant made to the Borrower for the financing of the Project shall have been suspended, cancelled, terminated or prematured in whole or in part, pursuant to the terms thereof, or
 - (B) any such loan shall have become due and payable prior to the agreed maturity thereof;
 - (ii) subparagraph (i) of this paragraph shall not apply if the Borrower establishes to the satisfaction of the Bank that: (A) such suspension, cancellation, termination or prematuring is not caused by the failure of the Borrower to perform any of its obligations under such agreement; and (B) adequate funds for the Project are available to the Borrower from other sources on terms and conditions consistent with the obligations of the Borrower under this Agreement.

Section 5.02. Pursuant to Section 7.01 (h) of the General Conditions, the following additional event is specified, namely that the event specified in paragraph (b) (i) (B) of Section 5.01 of this Agreement shall occur, subject to the proviso of paragraph (b) (ii) of that Section.

ARTICLE VI

Termination

Section 6.01. The date ninety (90) days after the date of this Agreement is hereby specified for the purposes of Section 12.04 of the General Conditions.

ARTICLE VII

Representative of the Borrower; Addresses

Section 7.01. The Minister of the Borrower at the time responsible for finance is designated as representative of the Borrower for the purposes of Section 11.03 of the General Conditions.

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

For the Borrower:

Minister of Finance Government House Port Louis Mauritius

Cable address: Telex:

MINFIN 4249 EXTERN IW PORT LOUIS

For the Bank:

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

Cable address: Telex:

INTBAFRAD 248423 (RCA)
Washington, D.C. 82987 (FTCC)
64145 (WUI) or
197688 (TRT)

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized representatives, have caused this Agreement to be signed in their respective names in the District of Columbia, United States of America, as of the day and year first above written.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

By /s/ Callisto E. Madavo
Acting Regional Vice President
Africa

MAURITIUS

By /s/ Chitmansing Jesseramsing $\qquad \qquad \text{Authorized Representative}$

SCHEDULE 1

Withdrawal of the Proceeds of the Loan

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

Amount of the
Loan Allocated % of
(Expressed in Expenditures
Dollar Equivalent) to be Financed

(1) Civil Works under 1,720,000 60% Parts B, D and G of the Project

Category

(2) Equipment, 100% of foreign materials and expenditures and supplies 85% of local expenditures

(a) under Parts A, 4,980,000 B, D and G of the Project (b) under Part E 160,000 of the Project

(c) under Part F 500,000 of the Project

Amount of the
Loan Allocated % of
(Expressed in Expenditures
Dollar Equivalent) to be Financed

(3) Consultants' services and training

Category

85% of local expenditures for services of consultants domiciled within the territory of the Borrower and 100% of foreign expenditures for services of other consultants

(a) under Parts A, 3,030,000 B, C, D and G of the Project

(b) under Part E 60,000 of the Project

(c) under Part F 20,000 of the Project

(4) Unallocated 1,900,000

TOTAL 12,370,000 =======

- 2. For the purposes of this Schedule:
- (a) the term "foreign expenditures" means expenditures in the currency of any country other than that of the Borrower for goods or services supplied from the territory of any country other than that of the Borrower; and
- (b) the term "local expenditures" means expenditures in the currency of the Borrower or for goods or services supplied from the territory of the Borrower.
- 3. Notwithstanding the provisions of paragraph 1 above, no withdrawals shall be made:
- (a) in respect of payments made for expenditures prior to the date of this Agreement, except that withdrawals, in an aggregate amount not to exceed \$500,000, may be made in respect of Categories (1), (2) (a) and (3) (a) on account of payments made for expenditures before that date but after June 1, 1990;
- (b) in respect of expenditures under Categories (2) (b) or (3)(b) until the Technical Steering Committee shall have been established and is operational; and
- (c) in respect of expenditures under Categories (2) (c) or (3) (c) until the ICOD Grant Agreement shall have been declared effective by ICOD.

SCHEDULE 2

Description of the Project

The objectives of the Project are to establish the policy and institutional framework to permit the Borrower to effectively manage and coordinate physical planning, land use control, infrastructure investment and environmental protection within its territories.

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

Part A: National Physical Development Plan

- 1. Preparation by MELU of a national physical development plan to guide the spatial development of the territory of the Borrower.
- 2. Creation and updating of a spatial information system, to be managed by MELU, for national investment programs.

Part B: Environmental Laboratories

- 1. Upgrading of the facilities at WQL, HQL, and AQL.
- 2. Conduct by WQL of water, waste water and effluent testing.
- 3. Conduct by HQL of all air and noise pollution testing, and testing for radiation and hazardous materials formation and entry into physiological substances.
- 4. Conduct by AQL of all food, fertilizer, pesticide, soils and other agriculture-related testing.
- 5. Establishment and operation of CEL to provide standard methodology and training for, and quality and audit control of, WQL, HQL and AQL, and to otherwise exercise general oversight over the testing and other activities of WQL, HQL and AQL.

Part C: Industrial Park

- 1. Carrying out of a study to identify the site for a new industrial park (the Industrial Park) to centralize and situate industrial activities in the most appropriate location.
- 2. Preparation, based on the study referred to in the preceding paragraph, of: (a) detailed designs for the site of the Industrial Park and for infrastructure (including roads, water supply, waste water treatment, drainage, solid waste disposal, toxic waste disposal, and electricity); and (b) of tender documents for construction of the Industrial Park.

Part D: National Solid Waste Management

- 1. Design and construction of a new sanitary landfill for solid and hazardous waste.
- 2. Upgrading of three existing sanitary landfills.

Part E: Integrated Pest Management

Carrying out of the following studies relating to pest management: (a) study to screen plants indigenous to the Borrower's territory to determine those having extracts with insecticidal properties; (b) study of behavior modifying chemicals for fruit fly control; (c) study to control tomato pests; (d) study of the

lepidopterous pest; and (e) study of ultra low volume and electrostatic sprayers.

Part F: Marine Conservation

- 1. Preparation of a marine environmental management plan which shall classify the individual components of the marine environment of the Borrower's territory based on a scheme to ensure their sustainable exploitation, including related training of MCD staff.
- 2. Design of a marine zoning plan (including related training of MCD staff) for the territory of the Borrower (the Zoning Plan) setting forth zones for permissible activities (including zones for scientific research, preservation, fisheries reserves, marine parks or diving parks and mineral extraction zones).
- 3. Establishment of at least 2 marine parks with varying types of protection to satisfy tourism, scientific, or educational needs, or to preserve biodiversity and ecodiversity, and to permit the replenishment of depleted fish stock.
- 4. Preparation of appropriate legislative and regulatory instruments for protection of marine parks and carrying out a training program in enforcement techniques for marine park managers and park wardens.
- 5. Preparation of the following programs on lagoons and reefs, including related training: (a) analysis of marine estuarine pollution to determine the long-term impact of pollutants, natural predators and other factors on the lagoons and reefs of the Borrower's territory, including establishing a monitoring program to determine basic parameters of lagoon and reef habitats; and (b) monitoring lagoon and reef ecosystems.
- 6. Carrying out of: (a) a study of the physical oceanography of the waters surrounding the territory of the Borrower, specifically on waves, tides and currents; and (b) preparation of a report relating to current patterns to oceanographic and meteorological phenomena and maps indicating current patterns around the territory of the Borrower.

Part G: National Park

- 1. Establishment and management of a national park in the Black River Gorges area (the Black River Gorges National Park) to preserve endangered endemic species and to conserve native flora, including related training of management personnel.
- 2. Construction of facilities for the administration of the Black River Gorges National Park.
- 3. Development of an expanded captive breeding center, research facilities and other resource management activities relating to ecosystems and species preservation and restoration, and general park management.

* * *

The Project is expected to be completed by June 30, 1995.

SCHEDULE 3

Amortization Schedule

Payment of Principal (expressed in dollars)*

Date Payment Due

On each January 15 and July 15 $\,$

beginning July 15, 1996 through July 15, 2007

515,000

and on January $15,\ 2008$

525,000