

**JAMAICA**

**PUBLIC SECTOR Y2K 2000 REMEDIATION PROJECT**

**(JA-0110)**

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## APPENDIX

### Proposed Resolutions

#### **BASIC SOCIOECONOMIC DATA**

The basic socioeconomic data for Jamaica are available on the Internet as the following address:

**English:**

[http://www/iadb/org/int/sta/english/brptframe\\_eng.htm](http://www/iadb/org/int/sta/english/brptframe_eng.htm)

**Spanish:**

[http://www/iadb/org/int/sta/spanish/brptframe\\_eng.htm](http://www/iadb/org/int/sta/spanish/brptframe_eng.htm)

ABBREVIATIONS AND ACRONYMS

CARICOM	Caribbean Common Market
GOJ	Government of Jamaica
IADB	Inter American Development Bank
OC	Ordinary Capital
IFF	Intermediary Financial Facility
TV	Television
Y2K	Year 2000
UN	United Nations

The technical file of the Project contain the following documents:

- i) GOJ Loan request
- ii) GOJ Project proposal
- iii) Terms of reference for consulting services by areas, persons, duration of services and cost
- iv) Technical specifications for computer hardware and software and cost
- v) Time table for the execution of activities for each component and for the entire project
- vi) Chart of accounts and name of the commercial bank to deposit the resources of the loan
- vii) Annex A of Document GP-92-15

## GENERAL DATA

**BORROWER AND  
GUARANTOR:**

JAMAICA

**EXECUTING AGENCY:**

OFFICE OF THE CABINET-Y2K PROJECT UNIT

**AMOUNT AND SOURCE:**

IDB: US\$10.0m (OC) (IFF) 1/  
Local: US\$ 0.3m  
Total: US\$10.3m

**FINANCIAL TERMS AND CONDITIONS:**

Amortization period: 5 years  
Grace period: 3 years  
Execution period: 1 year  
Disbursement period: 1.3 years  
Interest rate: 4% above Libor of  
the US\$ for six  
months  
Front-end fee: 1%  
Commitment fee: 0,75%

## I. FRAME OF REFERENCE

### A. BACKGROUND AND RATIONALE

- 1.1 At the turn of the century, public institutions-and the borrowing member countries of the Bank in particular-will be facing a technological emergency generally known as the Year 2000 Problem (Y2K Problem), caused by the fact that many digital data systems currently in use will not be able to correctly recognize or process data subsequent to December 31, 1999. This situation stems from the fact that in the early years of systems development, programmers had to store the year as a two-digit number (for example, 75) instead of a four-digit number (1975). Thus, starting January 1,2000, computers might read "00" as "1900" instead of "2000". This lack of numeric capability will cause these programs to make fundamental errors in the computations and processing which in turn could cause the collapse of many data systems now used in public and private sector operations.
- 1.2 Among the systems that could be significantly affected are:  
i) telecommunications; ii) transportation (air, rail,

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1/The Government of Jamaica requested the use of IFF for this operation. The Administration recommended to the Board of Directors a positive consideration of this matter (paragraph 2.26).

highway and maritime); iii) electric power production and distribution; iv) potable water and solid waste treatment; v) hospitals and other medical facilities; vi) manufacturing and distribution; vii) insurance and financial institutions; viii) tax collection; ix) international business; x) criminal justice, court and police operations; xi) social services; and, xii) public investments and emergency systems.

1.3 Public institutions, in particular, are highly vulnerable to the Y2K Problem in many areas relating to their internal operations and the external services they provide to their clients. The most serious internal problem will be the with the data-processing systems, which would not be able to process financial data with the accuracy required; computerized equipment (such as elevators, telephones exchanges, shutoff valves and security systems) will not function properly either. Moreover, the exchange of data with external users could be disrupted, which would have serious consequences for the region's open economies.

1.4 To address the potential threats posed by the Y2K Problem, the Government of Jamaica (GOJ) has undertaken two broad initiatives: i) the establishment of the Y2K Project Unit, within the Office of the Cabinet Secretary, with responsibility for addressing Y2K issues in the public sector; and, ii) the designation of the Ministry of Commerce and Technology to assist the private sector with feasible interventions.

1.5 The broad responsibility of the Y2K Project Unit is to ensure that technology-based systems within the public sector are not disrupted by failures related to the Y2K data change. The Unit assist ministries and agencies to establish in-house Y2K teams, promote awareness, coordinate Y2K activities, and monitor and report on Y2K status to the Cabinet.

#### B. JAMAICA PUBLIC SECTOR Y2K ACHIEVEMENTS

1.6 Since the second half of 1998 the government initiated a number of activities to address the Y2K Problem. Specifically, the Y2K Project Unit has been implementing and, or, coordinating the implementation of the following activities: i) inventory and assessment of systems within the public sector; ii) remedial activities for the Financial and National Security sectors and the Jamaica Public Service Co. (power utility); and, iii) providing technical and financial resources to the Health and Transport sectors, to carry on diagnostics and develop educational seminars and short courses related to the Y2K problem.

- 1.7 In addition, the Y2K Project Unit has been implementing an ongoing public awareness campaign targeting the high priority public sector entities and their middle to senior level managers. The campaign has included mass media activities aimed at the general public, presentations, newspaper articles and TV interviews. The public education program is expected to be intensified during the second half of the current year with the assistance of this project.

C. FUNDING AND INTERNATIONAL COOPERATION

- 1.8 The GOJ has allocated most of the resources for Y2K activities within the public sector. So far, an estimated J\$200 m (US\$5.3 m) has been made available to various ministries and agencies, not including substantial amounts which have been made available to entities within the financial sector. The World Bank has also contributed US\$0.5 m through its InfoDev Program which has been utilized to provide technical assistance to ministries and departments and to assist in a National Awareness Campaign. The IADB, through the Multilateral Pre-Investment Program, has also earmarked assistance in the amount of US\$200 thousands, for the public education and a study to assess the Y2K readiness of the private sector.
- 1.9 At the international level, Jamaica has participated in the CARICOM Regional Committee, the G15 Expert Level Conference as well as the UN Y2K Coordinators Meeting. Reports on the public sector Y2K operations have been sent to the international community on timely bases.
- 1.10 The proposed project represents a continuation of GOJ efforts to address the Y2K Problem. The project will assist key public institutions to upgrade their critical technology data-based to avoid disruptions by failures related to the Y2K data change that will occur on december 31, 1999. It is also envisage to develop contingency plans for others public entities whose critical systems can not be fixed on time as well as to promote awareness. Within this context, the project will help to continues a set of activities whose implementation will not be completed by the end of this year. These activities represents a small portion of a very large number of systems and related services that the country would need to fix to become Y2Y fully compliant.
- 1.11 However, taking into consideration that remediation, testing and the development of contingency plans are presently in progress in all the relevant agencies, current projections are that although some mission-critical systems within priority entities will be Y2K ready by october/99,

contingency plans and other key activities will carry over January of 2000.

## II. THE PROJECT

### A. OBJECTIVES

- 2.1 The overall objective of the project is to minimize the risk of economic and social disruptions that could result from the failure of computer systems to become Y2K compliant.
- 2.2 The specific objectives are to: i) ensure that mission-critical systems within priority areas are Y2K compliant; and, ii) develop contingency plans for systems that could be affected by Y2K issues.

### B. DESCRIPTION

- 2.3 The overall strategy to address the Y2K Problem includes targeting the following priority areas in the public sector: i) Transport and Works; ii) Ministry of Finance and Planning; iii) Health; iv) National Water Commission; v) Jamaica Public Service Co.; and, vi) FINSAC. These sectors/agencies were selected by BOJ based on their level of technology utilization, social impact and the functions performed for the business community and the government.
- 2.4 The project includes the following two components described below: i) Remediation of mission-critical systems; and, ii) Development of contingency plans.
  - 1.Component for Remedial of Mission - Critical Systems
- 2.5 This component entails the conversion/renovation of systems and the testing of converted systems. Specifically, the overall conversion process involves the following activities: i) development of computer based technology specification and embedded systems; ii) test planning; iii) development of preliminary design; iv) development of detailed designs; v) development of test procedures; vi) coding or coding conversion and unit testing; vii) replacement of non-compliant hardware and/or software; viii) system testing; and, ix) integration testing.
- 2.6 Under remedial interventions implemented so far, priorities have been determined such that the most critical business systems attain Y2K compliance first. To the extent possible, remedial activities on various mission - critical



systems have been built at the same time the remedial action is carried out. Program change control software has been used on all Y2K interventions deemed to be sufficiently complex to warrant the use of the software. This is done in order to ensure consistency in making Y2K required program code changes, to provide a means of control and to provide an audit trail of what has been changed, when and by whom. These efforts will be enlarged for the critical systems within the context of this project. Special attention will be given to the development of the following activities:

a. Test Planning

- 2.7           Testing includes regression, performance, stress and forward and backward test procedures, as appropriate. Entities will track the testing and validation process and collect and use project-related statistics to manage the process. Entities will successfully complete acceptance testing prior to the introduction of new software to the production environment and reintegrate to converted and replaced systems and related data with the new software.

b. Implementation of remedial software

- 2.8           In order to avoid problems when systems that have been made compliant are reintegrated, data field formatting is to be synchronized, or conversion programs established, for data interchanges with third party information systems vendors and business partners. Entities will also assess the degree to which software tools can be used to prevent and detect the importation of incompatible date-formatted data.

2. Component for development and implementation of contingency plans

- 2.9           The contingency plans involve the development of fall-back activities related to failure of individual systems and applications and the transaction-oriented contingencies to address failures of an entity's ability to carry out its mission-oriented functions in worst-case scenarios. Therefore, contingency plans will be developed for systems that could be affected by Y2K issues and will address possible damage to key sectors of the economy.

c.           COST AND FINANCING

- 2.10          The total cost of the project amount US\$10.3 millions, from which US\$10.0 millions will be financed by the IADB from the resources of the Y2K Emergency Line of Credit and the equivalent to US\$0.3 million from the GOJ. The following

charts shows the cost and financing by categories of investments and by priority areas.

Chart No. 2-1  
Cost and financing  
(US\$millions)

Categories	IADB (OC) (IFF)	Local	Total	%
1. Administration	-	0.3	0.3	3
2. Consultancy Services	1.1	-	1.1	11
3. Equipment	7.870	--	7.870	76
3.1 Computer hardware	5.949		5.949	58
3.2 Computer software	1.921	--	1.921	18
4.0 Financial cost	1.030		1.030	10
4.1 Interest	.805	-	.805	
4.2 Commitment Fee	.125	-	.125	
4.3 Front-end Fee	.100		.100	
Total	10.0	0.3	10.3	100
%	97	3	100	

Chart No. 2-2  
Investment by areas

Areas	US\$millions
Transport and Works	1.15
Finance and Planning	1.34
Health	1.05
National Water Commission	1.6
Jamaica Public Service Co.	.63
FINSAC	2.0
Others GOJ entities	1.2
Administration	0.3
TOTAL	9.27

D. EXECUTION

- 2.11 The GOJ Y2K Project Unit in the Office of the Cabinet will be directly responsible for the execution of the project. As indicated in Paragraph 1.5 of this document, said Unit was responsible for the inventory and assessment of systems for the entire public sector in the country and is actually engaged in supervising and coordinating the implementation of remedial activities for various sectors.

a. Periods for execution and disbursement

- 2.12 The project will be executed in 12 months and the resources disbursed in 15 months, both periods counted from the date of validity of the respective loan contract.

b. Disbursements

- 2.13 The Bank's current disbursement procedures will be used. The supporting documents for expenditures will be reviewed by ex-post sampling.

c. Revolving fund

- 2.14 It is estimated that US\$2.0 m from the IADB resources will be required as a revolving fund to assure the continuous execution of the project. This amount represents 20% of the Loan and is planned to be invested in the first quarter of the execution period in the contracting and payment of goods and services already defined.

d. Recognition of Expenses and Retroactive Financing

- 2.15 The Bank may recognize expenditures, charges to the financing and to the local counterpart, incurred in the project after May 1, 1999 and up to the date of Bank's approval of the loan, provided that requirements substantially similar to those set forth in the Loan Contract have been fulfilled.

e. Auditing

- 2.16 The executor will prepare and submit to the Bank, duly audited by the Auditor General, financial statements of the operation, within the terms set forth in the Bank's guidelines.

E. GOODS AND SERVICES

- 2.17 The project does not include contracting of civil works. Using the resources of the financing, the project envisages contracting 44 m/p of professional services for the amount

of US\$1.1m equivalents, and the procurement of computer hardware and software and related services in the amount of US\$7.8m equivalents. The local resources will cover administrative expenditures, supervision and monitoring from the Y2K Office Unit.

2.18 The Bank's procedures for procurements of goods and services with the resources of the Y2K Line of Credit will be used. The procedures indicates that: i) international competitive bidding is compulsory when the value of the goods and services is US\$350,000 and up; ii) International open calls for proposals is compulsory for consulting service contracts in excess of US\$200,000; and, iii) the procurement of goods and related services and for contracting consulting services involving amounts below the aforementioned thresholds will be governed by national or provincial legislation, as applicable.

2.19 While the country recognizes the emergency nature of the Y2K Problem, simplified procedures may be used for the procurement of goods and related services and for contracting consulting services (Document GN-2031-5). Such simplified procedures are detailed in Annex A of Document GP-92-15.

F. SUPERVISION AND EVALUATION

2.20 The Field Office in Jamaica will supervise the operation on behalf of the Bank. The executor will prepare and submit to the Bank, semiannual progress reports. Said reports will describe the physical and financial progress achieved by the project during the period and the amount of resources disbursed and committed; at the same time the reports would focus in the following indicators: i) number of mission-critical systems in priority areas that has been made Y2K compliant; ii) the effectiveness (the extent to which systems failure is prevented or minimized) of contingency and disaster recovery plans; iii) incremental benefits to the society resulting from project implementation such as adoption of international standards and benchmark; level of technology transfer from technical consultants to GOJ personnel; and, iv) the completeness of systems documentation and inventory.

2.21 The annual evaluations reports will be based in the same indicators detailed in Paragraph 2.20 and will be prepared by independent evaluators hired by the executor following the Bank procedures for contracting consulting services.

G. BENEFITS

- 2.22 The main benefits resulting from the project include: i) to facilitate the continued delivery of critical goods and services to firms/organization and consumers, ensuring economic and social stability; and, ii) to help saving the cost for entities that would otherwise have to expend resources in recovery operations.

H. RISKS

- 2.23 The mayor risk facing the project is that critical goods and services might not be available on a timely basis. This could result from: i) supplies procured not delivered on time owing to the high level of demand; and, ii) unavailability of consultants at the time needed.
- 2.24 In order to mitigate the first risk, procurement contracts will include substantial damages for late delivery; and as for the second risk, arrangements are being made to share expertise from the public and private sectors.
- 2.25 In order to prevent the risk of legal actions caused by Y2K non compliance, entities have performed potential liability self assessment with regard to Y2K non-compliance and are putting steps in place to protect against the occurrence of these liabilities. Where software source code is being held in escrow, entities are ensuring that the escrowed copy of the source code is updated to the version that has attained Y2K compliance. Agencies also have been advised to ensure that consultants and procurement contracts financed with the resources of the loan include statements on Y2K compliance and warranties.

I. SPECIAL CONTRACTUAL CONDITIONS

- 2.26 Considering that the lending to deal with Y2K emergency issues is of a different nature than that supporting lending for liquidity support, as an exception to its financial conditions, the Board is requested to approve the use of the IFF funds for this program. The proposed IFF subsidy level would be no more than the percentage subsidy that would have been available to Jamaica on a normal Ordinary Capital loan.
- 2.27 To facilitate the fulfillment of the special contractual conditions required, the GOJ has submitted the following evidence: i) name, tittle and signature of the persons responsible for the execution of the project; ii) name of the organization that will audit the financial statements; and, iii) the code of account and name of the commercial bank to deposit the resources of the IADB loan. The

negotiation agreement would register the Bank's acceptance of said conditions.

- 2.28 Taking into consideration the nature of this operation, it is advisable to hire consultants to perform an independent evaluation, within the framework indicated in Paragraphs 2.20 and 2.21 of this document.

PROPOSED RESOLUTION

JAMAICA. LOAN \_\_\_\_/OC-JA TO THE GOVERNMENT OF JAMAICA  
Public Sector Year 2000 Remediation 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 Government of Jamaica, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the Public Sector Year 2000 Remediation Project. Such financing will be for the amount of up to ten million dollars of the United States of America (US\$10,000,000) from the resources of the Year 2000 Emergency Line of Credit (Document GN-2030-2) of the Ordinary Capital resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Financial Terms and Conditions" of the Executive Summary of the Loan Proposal.

PROPOSED RESOLUTION

JAMAICA. PARTIAL PAYMENT OF INTEREST ON LOAN No. \_\_\_\_/OC-JA  
TO THE GOVERNMENT OF JAMAICA  
(Public Sector Year 2000 Remediation 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 as administrator of the Intermediate Financing Facility Account, hereinafter referred to as the "Account," to enter into such contract or contracts as may be necessary with the Government of Jamaica, as Borrower, and to adopt other pertinent measures to use the resources of the Account to pay a portion of the interest due by the Borrower on outstanding balances of the loan authorized by Resolution DE-\_\_\_\_/\_\_\_\_, in accordance with the provisions set forth in Document FN-263-2, as amended, approved by the Board of Executive Directors on December 21, 1983.